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A WATER QUALITY STUDY OF THE FLATHEAD RIVER BASIN IN BRITISH COLUMBIA PRIOR TO PROPOSED COAL MINING

(DATA REPORT)

S.W.Sheehan , G.L.Ennis , R.L.Hallam ,
A.L.Smith , T.M.Tuominen

March , 1985

Inland Waters Directorate
Pacific and Yukon Region
Vancouver, B.C.

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WATER QUALITY BRANCH

INLAND WATERS DIRECTORATE

ENVIRONMENT CANADA

PACIFIC AND YUKON REGION

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1985

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ABSTRACT

In 1972 Rio Algom mines began exploring coal deposits in the Flathead River Valley. A mine was proposed on Cabin Creek, a tributary to Howell Creek which enters the Flathead River about 10 km north of the International Boundary. Because of the potential adverse effects to transboundary waters, the Water Quality Branch, Inland Waters Directorate examined the water quality of the Canadian portion of the Flathead River Basin.

In 1975 and 1976 chemical parameters were measured in water, sediment and biota. Algae and invertebrates were also collected to provide information on existing communities. On two subsequent trips in August, 1980 and July, 1982, chemical parameters were measured in the water. In addition, algae were collected for analysis of species composition and abundance.

This report presents the chemical and biological data from these collections and measurements.

RESUME

En 1972, la campagnie minière Rio Algom a entrepris l'exploration des gisements de charbon situés dans la vallée de la rivière Flathead. L'exploitation d'une mine a été proposée près du ruisseau Cabin, un tributaire du ruisseau Howell qui se jette dans la rivière Flathead à environ 10 kilomètres au nord de la frontière internationale. Comme ces activités pouvaient avoir des effets néfastes sur la qualité des eaux transfrontalières, la Direction de la qualité de l'eau de la Direction générale des eaux intérieures a entrepris une étude de la qualité des eaux de la partie canadienne du bassin de la rivière Flathead.

En 1975 et en 1976, les paramètres chimiques ont été mesurés dans l'eau, les sédiments et le biote. On a aussi recueilli des algues et des invertébrés afin d'étudier les communautés existantes. Lors de deux voyages ultérieurs, en août 1980 et en juillet 1982, on a mesuré à nouveau les paramètres chimiques de l'eau; en outre, des algues ont été recueillies afin de déterminer la composition en espèces et leur abondance.

Le présent rapport renferme les données chimiques et biologiques recueillies dans le cadre de ce projet.

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INTRODUCTION

In 1972 Rio Algom mines began exploring coal deposits in the Flathead River Valley. A mine was proposed on Cabin Creek, a tributary to Howell Creek which enters the Flathead River about 10 km north of the International Boundary (Fig. 1). Because of the potential adverse effects to transboundary waters, the Water Quality Branch, Inland Waters Directorate examined the water quality of the Canadian portion of the Flathead River Basin.

In 1975 and 1976 nutrients, metals and other chemical parameters were measured in water, sediment and biota. Algae and invertebrates were also collected to provide information on existing communities. The results of this study have been described by Sheehan et al. (1980).

The present report is a compilation of the data summarized in Sheehan et al.'s interpretive report. In addition, this document contains water chemistry and algal species data collected on two subsequent monitoring trips to the Flathead Basin in August, 1980, and July, 1982.

Sampling Stations

Data were collected from nine sampling stations during the 1975-76 study (Fig. 1). Station 3 on the Flathead River was sampled in 1980 and 1982. Station 2 (Howell Creek) was sampled in 1982.

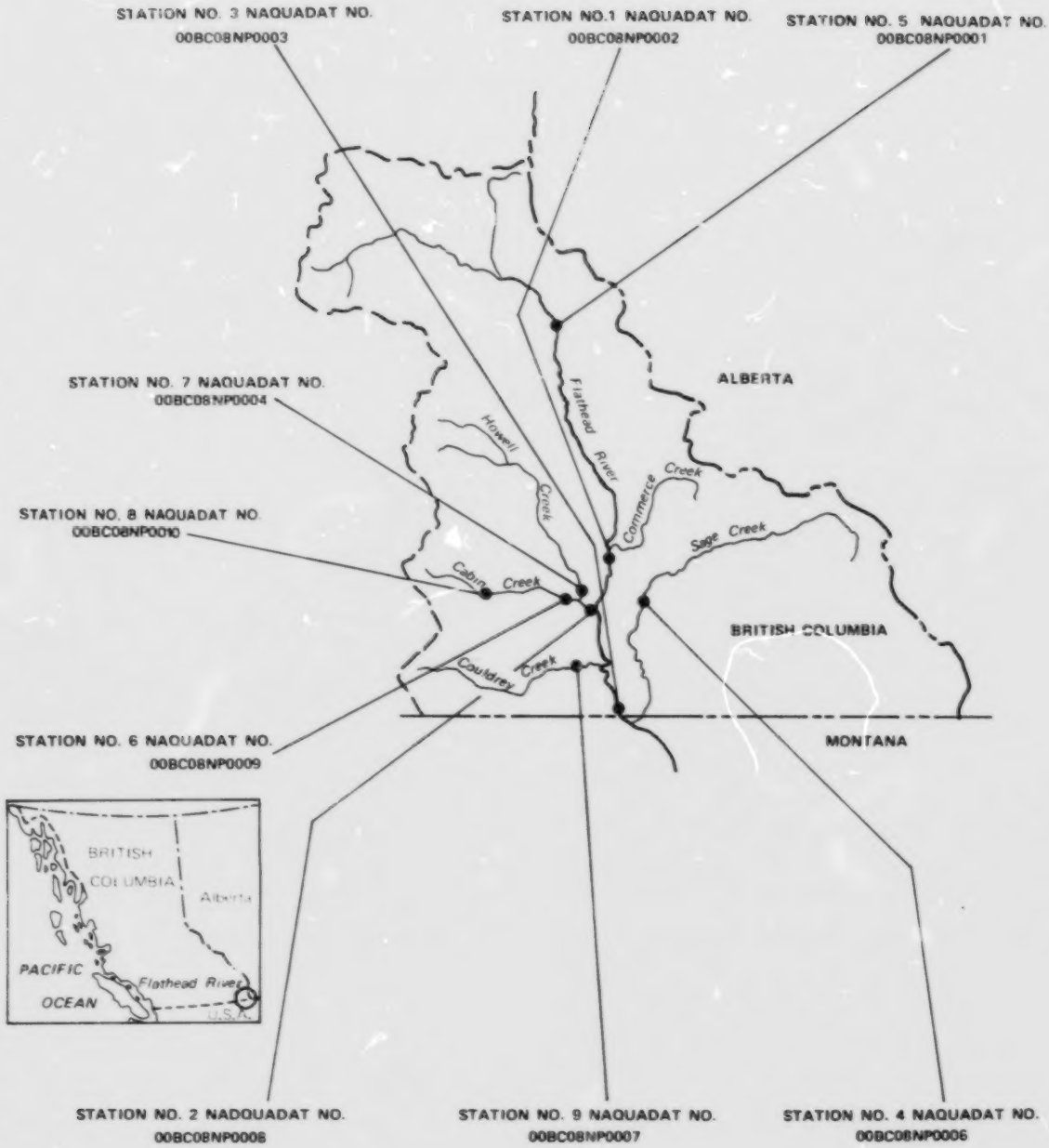

Fig. 1. STATION LOCATION AND NAQUADAT STATION NO.

Methods

All chemical and biological methods used during the 1975-76 study have been described elsewhere (Sheehan et al. 1980). Analytical methods for chemical parameters are detailed in the NAQUADAT dictionary (Inland Waters Directorate, Water Quality Branch 1983). The method for each chemical parameter is identified by its NAQUADAT code number (Table 1). Chemical analytical methods used for the 1980 and 1982 samples are the same as those previously described, except that nitrogen samples were filtered in the field.

In 1982, the following differences in the treatment of periphyton samples occurred. Only whole rocks were sampled. The collected algae were subdivided using a plankton splitter, and only the fraction to be used for organic weight determinations was filtered. Instead of cleaning with nitric acid, laboratory preparation of the fraction for diatom analysis followed the procedures of Hasle and Fryxell (1970). This consisted of digesting the sample in a solution of sulphuric acid and potassium permanganate, followed by clearing the liquid with a solution of oxalic acid saturated with distilled water. The sample was then centrifuged and the excess liquid was decanted and discarded. The remaining oxidized frustules were rinsed with distilled water, settled and decanted several times until a pH of 6.5-7.0 was reached. A subsample of known volume was first diluted with distilled water, and then poured into an evaporation dish (Battarbee 1973) containing four circular coverslips. The liquid in the dish was allowed to evaporate. When dry, the

coverslips were removed and mounted onto microscope slides with Hyrax mounting media. Only one slide from each sample was examined.

Transects rather than random fields were counted, using a phase contrast microscope at 1000X magnification. All diatoms encountered were identified and counted until a minimum of 100 frustules of the dominant species and a total of at least 300 frustules had been counted. Because high magnification can produce errors in the counts of large diatoms, e.g. *Gomphonema geminatum*, the sample was re-examined at 200X magnification and only the large diatoms counted. Suitable conversion factors were used to transform counts to cells/cm^2.

Laboratory treatment of the 1982 phytoplankton samples also differed from the previous method. Planktonic algae were enumerated using the Utermöhl technique (Utermöhl 1958). Samples were shaken and transferred to 5, 10, or 25cc settling chambers (depending on algal density). Samples were settled four hours for each centimeter of height and then enumerated using an inverted phase contrast microscope. Transects were examined at 625X magnification and all phytoplankton identified and counted until a minimum of 100 cells of the dominant species and a total of at least 300 cells had been counted. In samples of low phytoplankton abundance when it was not possible to count 300 cells, 10 transects were enumerated. Lengths of filaments were measured, and colonies of small cells were counted as individuals. Because high magnifications can produce errors in

the counts of large phytoplankton species, the samples were re-examined at 200X magnification and only large phytoplankton counted. In all cases live and dead phytoplankton were counted separately. Suitable conversion factors were used to transform counts to cells/ml.

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We thank Mr. J. Taylor and other members of the field staff from the Water Quality Branch who provided needed assistance. The authors are grateful to Mr. F.T.S. Mah and personnel of the Analytical Service Division, Water Quality Branch, Pacific and Yukon Region for precise and timely data. In particular we thank Mr. E. Michnowsky and Ms. P.A. Thomson for developing the capacity to measure metals in sediments, algae, and fish tissue. We also thank Mr. J. Keays for macroinvertebrate identifications and Ms. M.K. Bolin and Mr. S.G. Yee for algal identifications. The assistance of Dr. J.R. Stein, University of British Columbia Botany Department, in idenfitying the *Monostroma* and *Nostoc* species is most appreciated.

We are especially grateful to Dr. S. Whitlow and Ms. M. Lamb, Water Quality Branch, Ottawa for adjusting the NAQUADAT coding format to accept replicate data and for providing the chemical data tables. We are also very grateful to Ms. M.L. Haines for typing the many drafts of this report.

TABLE 1

NAQUADAT Code Numbers and Limits of Detection for Chemical Parameters Measured in the Flathead River Basin Study

Parameter	NAQUADAT Number	Detection Limit
Colour	02011	5.0
Specific Conductance (Lab)	02041 L	0.2 usie cm^{-1}
Specific Conductance (Field)	02041 S	0.2 usie cm^{-1}
Water Temperature (Lab)	02061 L	
Water Temperature (Field)	02061 S	
Turbidity	02073	0 jtu
Total Organic Carbon	06001	Variable
Total Inorganic Carbon	06051	Variable
Phenolic Material	06536	0.0005 mg l^{-1}
Tannin and Lignin	06552	0.02 mg l^{-1}
Particulate Carbon	06903	Variable
NO_3/NO_2 (dissolved)	07110	0.002 mg l^{-1}
Ammonia (dissolved)	07557	0.002 mg l^{-1}
Total Dissolved Nitrogen (unfiltered)	07651	0.01 mg l^{-1}
Total Dissolved Nitrogen (filtered)	07655	0.01 mg l^{-1}
Particulate Nitrogen	07903	Variable
Fluoride (dissolved)	09106	0.05 mg l^{-1}
Alkalinity (total)	10101	0.5 mg l^{-1} $CaCO_3$
Alkalinity (phenolphthalein)	10151	0.5[1] mg l^{-1} $CaCO_3$
pH (Lab)	10301 L	
pH (Field)	10301 S	
Nonfilterable residue	10401	10.0 mg l^{-1}
Filterable residue	10451	10.0 mg l^{-1}
Nonfilterable residue (fixed)	10501	10.0 mg l^{-1}
Filterable residue (fixed)	10551	10.0 mg l^{-1}
Hardness (total)	10603	0.5 mg l^{-1} $CaCO_3$
Sodium (dissolved)	11103	0.2 mg l^{-1}

[1] This limit of detection applies at pH L8.3. At lower pH phenolphthalein alkalinity = 0.

TABLE 1 (Continued)

Parameter	NAQUADAT Number	Detection Limit
Magnesium (dissolved)	12101	Calculated
Silica (reactive)	14105	0.2 mg l^{-1}
Phosphorus (dissolved)	15102	0.002 mg l^{-1}
Phosphorus (total)	15406	0.002 mg l^{-1}
Sulphate (dissolved)	16306	0.5 mg l^{-1}
Chloride (dissolved)	17206	0.2 mg l^{-1}
Potassium (dissolved)	19103	0.2 mg l^{-1}
Calcium (dissolved)	20101	0.5 mg l^{-1}
Manganese (extractable)	25304	0.01 mg l^{-1}
Iron (extractable)	26304	0.05 mg l^{-1}
Iron (extractable)	26305	0.001 mg l^{-1}
Cobalt (extractable)	27302	0.001 mg l^{-1}
Nickel (extractable)	28302	0.001 mg l^{-1}
Copper (extractable)	29305	0.001 mg l^{-1}
Zinc (extractable)	30305	0.001 mg l^{-1}
Arsenic (extractable)	33304	0.0001 mg l^{-1}
Selenium (extractable)	34302	0.0001 mg l^{-1}
Molybdenum (extractable)	42302	0.0005 mg l^{-1}
Cadmium (extractable)	48302	0.0002 mg l^{-1}
Barium (extractable)	56301	0.1 mg l^{-1}
Barium (extractable)	56302	0.02 mg l^{-1}
Mercury (extractable)	80311	0.05 ug l^{-1}
Lead (extractable)	82302	0.001 mg l^{-1}

Table 2.

NAQUADAT Detailed and Summary Report for the Flathead River Basin, 1975-1982

Parameters are listed under their NAQUADAT code numbers as summarized in Table 1. The five-digit code number followed by an "L" or a "P" (eg. 02011L , 25304P) indicates that values are for single samples. The five digit code followed by an "R" (eg. 06001R) indicates that the values are means of replicates. Replicate means are always followed by the individual replicate values (eg. 060011 = replicate #1 - - - 060016 = replicate #6).

When the same parameter has been measured by different methods on different dates, all data are listed in one column, and the differences are indicated with back-up codes. For example, iron is measured by direct aspiration (26304) or solvent extraction (26305) depending on its concentration.

26304 P
Iron
Extractable

.034 05P	(solvent extraction)
.60	(direct aspiration)
.042 05R	(solvent extraction, replicate mean)

Although the detection limit for nonfilterable residues (10401 and 10501) is 10 mg l^{-1} (Table 1), the laboratory sometimes reports lower values. Caution is advised in interpreting values below 10 mg l^{-1}.

84-04-13

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0001
FLATHEAD RIVER ABOVE POLLOCK CREEK. ROAD BRIDGE.
(INTERPRETIVE REPORT STATION 5)

LAT. 49D 19M 4S LONG 114D 33M 38S
BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02011L COLOUR APPARENT REL. UNITS	02041L SPECIFIC CONDUCT. USIE/CM	02041S SPECIFIC CONDUCT. USIE/CM	02061L TEMP. WATER DEG.C.	02061S TEMP. WATER DEG.C.	02073L TURBIDITY JTU	06001R CARBON TOTAL ORGANIC C MG/L	060011 CARBON TOTAL ORGANIC C MG/L
75-08-20	1000	325	L5.	215.	220.	22.0	10.0	.3	1.2	1.6
76-04-12	1030	325	15.	130.	150.	22.5	1.0	3.0	2.9	2.9
76-05-28	1000	325	15.	94.	90.	22.8	3.5	6.5	5.0	6.1
76-06-14	0845	325	L5.	117.	110.	20.8	3.5	.8	4.0	4.1
76-08-04	1630	325	5.	196.	230.	19.6	11.0	.5	2.8	2.8
76-09-12	0845	325	L5.	204.	220.	21.9	7.5	.3	L1.0	L1.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060012 CARBON TOTAL ORGANIC C MG/L	060013 CARBON TOTAL ORGANIC C MG/L	060014 CARBON TOTAL ORGANIC C MG/L	060015 CARBON TOTAL ORGANIC C MG/L	060016 CARBON TOTAL ORGANIC C MG/L	06051R CARBON TOTAL INORGANIC C MG/L	060511 CARBON TOTAL INORGANIC C MG/L	060512 CARBON TOTAL INORGANIC C MG/L
75-08-20	1000	325	1.1	L1.0	1.5	L1.0	1.1	28.3	28.8	28.1
76-04-12	1030	325	2.6	3.2	2.9	--	--	15.7	15.8	15.8
76-05-28	1000	325	6.4	3.2	5.5	3.5	5.3	10.0	10.0	10.0
76-06-14	0845	325	3.2	3.5	4.4	4.1	4.6	13.5	14.0	14.0
76-08-04	1630	325	2.1	2.6	2.8	4.9	1.7	23.0	23.0	24.0
76-09-12	0845	325	L1.0	L1.0	L1.0	L1.0	L1.0	27.3	28.0	28.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060513 CARBON TOTAL INORGANIC C MG/L	060514 CARBON TOTAL INORGANIC C MG/L	060515 CARBON TOTAL INORGANIC C MG/L	060516 CARBON TOTAL INORGANIC C MG/L	06536R PHENOLIC MATERIAL PHENOL MG/L	065361 PHENOLIC MATERIAL PHENOL MG/L	065362 PHENOLIC MATERIAL PHENOL MG/L	065363 PHENOLIC MATERIAL PHENOL MG/L
75-08-20	1000	325	28.4	28.2	28.3	27.9	--	--	--	--
76-04-12	1030	325	15.5	15.8	--	--	L.0005	L.0005	L.0005	L.0005
76-05-28	1000	325	10.0	10.0	10.0	10.0	L.0005	L.0005	L.0005	L.0005
76-06-14	0845	325	14.0	13.0	13.0	13.0	L.0005	L.0005	L.0005	L.0005
76-08-04	1630	325	23.0	23.0	21.0	24.0	L.0005	L.0005	L.0005	--
76-09-12	0845	325	27.0	27.0	27.0	27.0	--	--	--	--

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0001
FLATHEAD RIVER ABOVE POLLOCK CREEK. ROAD BRIDGE.
(INTERPRETIVE REPORT STATION 5)

LAT. 49D 19M 4S LONG. 114D 33M 38S
BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	06552L TANNIN AND LIGNIN LIG.SULPH. MG/L	06903L CARBON PARTICULATE C MG/L	07110R NITROGEN DISSOLVED NO3 & NO2 N MG/L	07110I NITROGEN DISSOLVED NO3 & NO2 N MG/L	07110Z NITROGEN DISSOLVED NO3 & NO2 N MG/L	07110З NITROGEN DISSOLVED NO3 & NO2 N MG/L	07110Ч NITROGEN DISSOLVED NO3 & NO2 N MG/L	07110Ѕ NITROGEN DISSOLVED NO3 & NO2 N MG/L
75-08-20	1000	325	.07	.150	.017	.011	.018	.019	.016	.014
76-04-12	1030	325	--	--	.067	.059	.058	.064	.058	.099
76-05-28	1000	325	--	--	.012	.014	.007	.013	.010	.012
76-06-14	0845	325	--	--	.008	.005	.012	.006	.003	.020
76-08-04	1630	325	--	--	.006	.002	.008	.006	.005	.007
76-09-12	0845	325	--	--	.009	.011	.008	.008	.008	.008

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07110Б NITROGEN DISSOLVED NO3 & NO2 N MG/L	07557R NITROGEN DISSOLVED AMMONIA N MG/L	07557I NITROGEN DISSOLVED AMMONIA N MG/L	07557Z NITROGEN DISSOLVED AMMONIA N MG/L	07557З NITROGEN DISSOLVED AMMONIA N MG/L	07557Ч NITROGEN DISSOLVED AMMONIA N MG/L	07557Ѕ NITROGEN DISSOLVED AMMONIA N MG/L	07557Б NITROGEN DISSOLVED AMMONIA N MG/L
75-08-20	1000	325	.021	.084	.071	.069	.124	.052	.057	.129
76-04-12	1030	325	.061	.009	.009	.008	.010	.009	.011	.008
76-05-28	1000	325	.013	.011	.014	.009	.009	.007	.016	.009
76-06-14	0845	325	.004	.004	.003	.006	.007	.001	.001	.004
76-08-04	1630	325	.006	.006	.006	.006	.006	.004	.009	.005
76-09-12	0845	325	--	.006	.006	.007	.006	.005	.005	--

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07651R NITROGEN DISSOLVED N MG/L	07651I NITROGEN DISSOLVED N MG/L	07651Z NITROGEN DISSOLVED N MG/L	07651З NITROGEN DISSOLVED N MG/L	07651Ч NITROGEN DISSOLVED N MG/L	07651Ѕ NITROGEN DISSOLVED N MG/L	07651Б NITROGEN DISSOLVED N MG/L	07903L NITROGEN PARTICULATE N MG/L
75-08-20	1000	325	.23	.20	.24	.28	.19	.18	.31	.022
76-04-12	1030	325	.15	.16	.15	--	--	--	--	--
76-05-28	1000	325	.09	.10	.08	.10	.08	.09	.09	--
76-06-14	0845	325	.07	.06	.07	.06	.05	.09	.08	--
76-08-04	1630	325	.05	.05	.06	.07	.05	.05	.05	--
76-09-12	0845	325	.05	.05	.05	.06	.04	.05	--	--

84-04-13

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0001
FLATHEAD RIVER ABOVE POLLOCK CREEK. ROAD BRIDGE.
LAT 49D 19M 4S LONG 114D 33M 38S
(INTERPRETIVE REPORT STATION 5) BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	09106L FLUORIDE DISSOLVED F MG/L	10101L ALKALINITY TOTAL CACO3 MG/L	10151L ALKALINITY PHENOL PHTHALEIN CACO3 MG/L	10301L PH PH UNITS	10301S PH PH UNITS	10401L RESIDUE NONFILTR. MG/L	10451L RESIDUE FILTERABLE MG/L	10501L RESIDUE FIXED NONFILTR. MG/L
75-08-20	1000	325	.10	112.0	1.7	8.5	7.9	--	--	--
76-04-12	1030	325	.09	62.4	0.0	7.7	7.8	16.	76.	9.
76-05-28	1000	325	.06	45.5	0.0	7.8	7.6	22.	82.	20.
76-06-14	0845	325	.09	57.0	0.0	7.9	7.5	0.	60.	0.
76-08-04	1630	325	.08	104.0	0.0	8.2	--	1.	168.	LO.
76-09-12	0845	325	.10	107.0	0.0	8.0	8.2	2.	160.	0.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10551L RESIDUE FIXED FILTERABLE MG/L	10603L HARDNESS TOTAL CACO3 MG/L	11103L SODIUM DISSOLVED NA MG/L	12101L MAGNESIUM DISSOLVED (CALCD.) MG MG/L	14105L SILICA REACTIVE SIO2 MG/L	15102R PHOSPHORUS TOTAL DISSOLVED P MG/L	15102I PHOSPHORUS TOTAL DISSOLVED P MG/L	15102J PHOSPHORUS TOTAL DISSOLVED P MG/L
75-08-20	1000	325	--	118.0	.8	8.8	3.9	--	--	--
76-04-12	1030	325	28.	67.5	.6	4.6	4.2	--	--	--
76-05-28	1000	325	48.	48.7	.5	2.5	3.7	--	--	--
76-06-14	0845	325	24.	60.6	.6	3.8	4.0	.013	.016	.013
76-08-04	1630	325	96.	105.0	.7	6.2	4.1	.011	.009	.015
76-09-12	0845	325	96.	108.0	.8	7.5	4.3	.007	.006	.008

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	15102S PHOSPHORUS TOTAL DISSOLVED P MG/L	15406R PHOSPHORUS TOTAL P MG/L	15406I PHOSPHORUS TOTAL P MG/L	15406J PHOSPHORUS TOTAL P MG/L	15406K PHOSPHORUS TOTAL P MG/L	15406L PHOSPHORUS TOTAL P MG/L	15406M PHOSPHORUS TOTAL P MG/L	15406N PHOSPHORUS TOTAL P MG/L
75-08-20	1000	325	--	.006	.002	.005	.008	.006	.007	.006
76-04-12	1030	325	--	.051	.040	.045	.040	.091	.046	.042
76-05-28	1000	325	--	.037	.035	.037	.035	.039	.036	.040
76-06-14	0845	325	.011	.016	.018	.017	.015	.016	.016	.016
76-08-04	1630	325	.008	.016	.013	.010	.024	.011	.015	.021
76-09-12	0845	325	.007	.011	.009	.008	.010	.011	.019	.008

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0001 LAT. 49D 19M 45 LONG. 114D 33M 38S
FLATHEAD RIVER ABOVE POLLOCK CREEK. ROAD BRIDGE. BRITISH COLUMBIA.
(INTERPRETIVE REPORT STATION 5)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	16306L SULPHATE DISSOLVED SO4 MG/L	17206L CHLORIDE DISSOLVED CL MG/L	19103L POTASSIUM DISSOLVED K MG/L	20101L CALCIUM DISSOLVED CA MG/L	25304P MANGANESE EXTRBLE. MN MG/L	26305P IRON EXTRBLE. FE MG/L	27302P COBALT EXTRBLE. CO MG/L	28302P NICKEL EXTRBLE. NI MG/L
75-08-20	1000	325	5.0	.3	.3	32.8	L.01	.011	--	--
76-04-12	1030	325	3.5	.3	.3	19.4	.02	.18 04P	L.001	L.001
76-05-28	1000	325	2.4	.3	.3	15.4	L.01	.11 04P	L.001	L.001
76-06-14	0845	325	2.7	.2	.3	18.0	L.01	.06 04P	L.001	L.001
76-08-04	1630	325	4.5	.3	.3	31.8	L.01	.019	L.001	.001
76-09-12	0845	325	4.6	.3	.3	30.9	L.01	.013	L.001	L.001

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	29305P COPPER EXTRBLE. CU MG/L	30305P ZINC EXTRBLE. ZN MG/L	33304L ARSENIC EXTRBLE. AS MG/L	34302L SELENIUM EXTRBLE. SE MG/L	48302P CADMIUM EXTRBLE. CD MG/L	56302P BARIUM EXTRBLE. BA MG/L	80311P MERCURY EXTRBLE. HG UG/L	82302P LEAD EXTRBLE. PB MG/L
75-08-20	1000	325	.001	.001	.0001	.0002	L.0002	--	.05	.001
76-04-12	1030	325	L.001	L.001	.0003	.0002	L.0002	.17	L.05	.001
76-05-28	1000	325	L.001	L.001	.0001	.0001	L.0002	.08	L.05	.001
76-06-14	0845	325	L.001	L.001	.0002	.0001	L.0002	.08	L.05	.003
76-08-04	1630	325	L.001	L.001	.0003	.0002	L.0002	.11	L.05	L.001
76-09-12	0845	325	L.001	L.001	.0003	.0002	L.0002	.22	L.05	L.001

FOOTNOTE: L - LESS THAN DETECTION LIMIT G - GREATER THAN MEASUREMENT LIMIT
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION G - PLUS GRAND QUE LA LIMITE MESURE

84-04-26

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 08BC08NP0002
FLATHEAD RIVER . 0.8 MILES EAST OF MARL LAKE .
(INTERPRETIVE REPORT STATION 1)

LAT. 49D 7M 14S LONG. 114D 29M 39S
BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02011L COLOUR APPARENT REL. UNITS	02041L SPECIFIC CONDUCT. USIE/CM	02041S SPECIFIC CONDUCT. USIE/CM	02061L TEMP. WATER DEG.C.	02061S TEMP. WATER DEG.C.	02073L TURBIDITY JTU	06001R CARBON TOTAL ORGANIC C MG/L	06001I CARBON TOTAL ORGANIC C MG/L
75-08-20	1515	325	L5	249.	275.	22.3	14.0	.2	L1.0	L1.0
76-04-12	0930	325	5.	200.	200.	22.5	1.0	2.2	2.1	3.1
76-05-27	1000	325	5.	172.	250.	22.9	5.0	5.2	3.5	4.5
76-05-28	1600	325	7.	152.	170.	22.6	8.0	45.0	6.5	5.7
76-05-29	1245	325	7.	157.	175.	22.8	5.0	18.0	3.4	3.9
76-06-14	1200	325	L5.	169.	200.	19.1	7.0	.4	2.7	3.4
76-06-16	0930	325	L5.	174.	170.	20.5	6.8	1.5	2.2	2.4
76-08-04	1315	325	L5.	229.	245.	19.7	15.0	.3	1.4	1.5
76-08-05	1110	325	L5.	227.	220.	19.7	11.0	.4	2.2	2.6
76-09-11	1210	325	5.	246.	300.	21.9	10.0	.5	L1.0	L1.0
76-09-12	1125	325	L5.	249.	290.	22.1	9.0	.3	1.0	1.2
76-09-13	1045	325	5.	252.	300.	22.0	9.0	.2	1.7	L1.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	06001 2 CARBON TOTAL ORGANIC C MG/L	06001 3 CARBON TOTAL ORGANIC C MG/L	06001 4 CARBON TOTAL ORGANIC C MG/L	06001 5 CARBON TOTAL ORGANIC C MG/L	06001 6 CARBON TOTAL ORGANIC C MG/L	06051R CARBON TOTAL INORGANIC C MG/L	06051I CARBON TOTAL INORGANIC C MG/L	06051 2 CARBON TOTAL INORGANIC C MG/L
75-08-20	1515	325	L1.0	L1.0	L1.0	L1.0	L1.0	36.3	36.2	36.2
76-04-12	0930	325	1.7	1.0	2.6	--	--	26.9	27.1	27.1
76-05-27	1000	325	2.5	3.1	2.8	4.2	3.9	21.3	20.0	22.0
76-05-28	1600	325	7.1	6.3	5.4	7.1	7.4	18.5	19.0	18.0
76-05-29	1245	325	4.6	2.2	3.2	3.5	3.0	20.2	20.0	19.0
76-06-14	1200	325	1.7	3.1	2.8	3.4	1.7	20.3	20.0	21.0
76-06-16	0930	325	2.6	2.7	2.0	2.4	L1.0	20.7	20.0	20.0
76-08-04	1315	325	1.3	L1.0	L1.0	2.5	L1.0	28.3	28.0	29.0
76-08-05	1110	325	L1.0	2.7	1.1	3.0	2.5	28.2	28.0	29.0
76-09-11	1210	325	L1.0	L1.0	L1.0	L1.0	L1.0	34.7	34.0	35.0
76-09-12	1125	325	L1.0	L1.0	L1.0	L1.0	L1.0	33.0	33.0	33.0
76-09-13	1045	325	2.0	2.3	L1.0	2.3	1.6	32.3	33.0	33.0

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLÉ

STATION - 00BC08NP0002
FLATHEAD RIVER . 0.8 MILES EAST OF MARL LAKE .
(INTERPRETIVE REPORT STATION 1)

LAT. 49D 7M 14S LONG. 114D 29M 39S
BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060513 CARBON TOTAL INORGANIC C MG/L	060514 CARBON TOTAL INORGANIC C MG/L	060515 CARBON TOTAL INORGANIC C MG/L	060516 CARBON TOTAL INORGANIC C MG/L	06536R PHENOLIC MATERIAL PHENOL MG/L	065361 PHENOLIC MATERIAL PHENOL MG/L	065362 PHENOLIC MATERIAL PHENOL MG/L	065363 PHENOLIC MATERIAL PHENOL MG/L
75-08-20	1515	325	36.6	36.7	35.9	36.3	--	--	--	--
76-04-12	0930	325	27.4	25.8	--	--	L.0005	L.0005	L.0005	L.0005
76-05-27	1000	325	22.0	22.0	21.0	21.0	L.0005	L.0005	L.0005	L.0005
76-05-28	1600	325	19.0	19.0	18.0	18.0	L.0005	L.0005	L.0005	L.0005
76-05-29	1245	325	21.0	21.0	21.0	19.0	--	--	--	--
76-06-14	1200	325	20.0	20.0	20.0	21.0	L.0005	L.0005	L.0005	L.0005
76-06-16	0930	325	21.0	20.0	21.0	22.0	--	--	--	--
76-08-04	1315	325	29.0	28.0	27.0	29.0	L.0005	L.0005	L.0005	--
76-08-05	1110	325	27.0	29.0	28.0	28.0	--	--	--	--
76-09-11	1210	325	35.0	35.0	35.0	34.0	L.0005	L.0005	L.0005	L.0005
76-09-12	1125	325	33.0	33.0	33.0	33.0	--	--	--	--
76-09-13	1045	325	32.0	32.0	32.0	32.0	--	--	--	--

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	06552L TANNIN AND LIGNIN LIG.SULPH. MG/L	06903L CARBON PARTICULATE C MG/L	07110R NITROGEN DISSOLVED NO3 & NO2 N MG/L	071101 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071102 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071103 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071104 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071105 NITROGEN DISSOLVED NO3 & NO2 N MG/L
75-08-20	1515	325	.04	.110	.038	.053	.117	.013	.005	.025
76-04-12	0930	325	--	--	.060	.059	.059	.064	.059	.059
76-05-27	1000	325	--	--	.012	.012	.013	.012	.012	.012
76-05-28	1600	325	--	--	.012	.011	.011	.011	.012	.013
76-05-29	1245	325	--	--	.021	.039	.013	.024	.014	.013
76-06-14	1200	325	--	--	.010	.011	.009	.018	.012	.005
76-06-16	0930	325	--	--	.005	.009	.002	.003	.003	.003
76-08-04	1315	325	--	--	.005	.002	.002	.003	.020	.003
76-08-05	1110	325	--	--	.017	.006	.006	.042	.012	.032
76-09-11	1210	325	--	--	.013	.039	.008	.008	.011	.005
76-09-12	1125	325	--	--	.025	.018	.051	.008	.009	.058
76-09-13	1045	325	--	--	.017	.018	.023	.014	.024	.014

84-04-26

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0002
FLATHEAD RIVER . 0.8 MILES EAST OF MARL LAKE .
(INTERPRETIVE REPORT STATION 1)

LAT. 49D 7M 14S LONG. 114D 29M 39S
BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07110 6 NITROGEN DISSOLVED NO3 & NO2 N MG/L	07557R NITROGEN DISSOLVED AMMONIA N MG/L	07557 1 NITROGEN DISSOLVED AMMONIA N MG/L	07557 2 NITROGEN DISSOLVED AMMONIA N MG/L	07557 3 NITROGEN DISSOLVED AMMONIA N MG/L	07557 4 NITROGEN DISSOLVED AMMONIA N MG/L	07557 5 NITROGEN DISSOLVED AMMONIA N MG/L	07557 6 NITROGEN DISSOLVED AMMONIA N MG/L
75-08-20	1515	325	.015	.091	.128	.220	.069	.033	.049	.048
76-04-12	0930	325	.059	.006	.006	.005	.005	.005	.006	.006
76-05-27	1000	325	.012	.012	.011	.010	.015	.011	.012	.015
76-05-28	1600	325	.011	.013	.013	.012	.013	.012	.013	.016
76-05-29	1245	325	.020	.013	.018	.010	.015	.010	.011	.012
76-06-14	1200	325	.006	.006	.003	.007	.007	.006	.006	.007
76-06-16	0930	325	.008	.005	.005	.004	.005	.004	.006	.005
76-08-04	1315	325	.002	.004	.004	.005	.003	.004	.003	.004
76-08-05	1110	325	.005	.006	.005	.009	.010	.006	.004	.004
76-09-11	1210	325	.005	.003	.005	.003	.003	.002	.002	.001
76-09-12	1125	325	.008	.011	.009	.010	.011	.008	.021	.009
76-09-13	1045	325	.010	.006	.006	.003	.004	.008	.008	.007

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07651R NITROGEN DISSOLVED N MG/L	07651 1 NITROGEN DISSOLVED N MG/L	07651 2 NITROGEN DISSOLVED N MG/L	07651 3 NITROGEN DISSOLVED N MG/L	07651 4 NITROGEN DISSOLVED N MG/L	07651 5 NITROGEN DISSOLVED N MG/L	07651 6 NITROGEN DISSOLVED N MG/L	07903L NITROGEN PARTICULATE N MG/L
75-08-20	1515	325	.28	.32	.64	.23	.19	.17	.14	.012
76-04-12	0930	325	.11	.12	.11	--	--	--	--	--
76-05-27	1000	325	.07	.08	.08	.07	.07	.08	.07	--
76-05-28	1600	325	.08	.08	.07	.07	.08	.08	.08	--
76-05-29	1245	325	.09	.14	.08	.10	.08	.08	.08	--
76-06-14	1200	325	.05	.06	.05	.06	.06	.05	.05	--
76-06-16	0930	325	.08	.04	.06	.06	.05	.22	.06	--
76-08-04	1315	325	.04	.04	.05	.04	.05	.05	.04	--
76-08-05	1110	325	.05	.04	.05	.08	.04	.04	.04	--
76-09-11	1210	325	.04	.06	.06	.04	.04	.04	.03	--
76-09-12	1125	325	.05	.06	.06	.04	.04	.08	.04	--
76-09-13	1045	325	.04	.05	.04	.04	.05	.04	.04	--

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0002
FLATHEAD RIVER . 0.8 MILES EAST OF MARL LAKE .
(INTERPRETIVE REPORT STATION 1)

LAT. 49D 7M 14S LONG. 114D 29M 39S
BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	09106L FLUORIDE DISSOLVED F MG/L	10101L ALKALINITY TOTAL CACO3 MG/L	10151L ALKALINITY PHENOL PHTHALEIN CACO3 MG/L	10301L PH PH UNITS	10301S PH PH UNITS	10401L RESIDUE NONFILTR. MG/L	10451L RESIDUE FILTERABLE MG/L	10501L RESIDUE FIXED NONFILTR. MG/L
75-08-20	1515	325	.09	132.0	4.2	8.6	7.8	--	--	--
76-04-12	0930	325	.10	102.0	0.0	7.9	7.8	31.	118.	24.
76-05-27	1000	325	.07	85.8	0.0	8.0	8.1	31.	105.	30.
76-05-28	1600	325	.07	74.4	0.0	8.1	8.3	104.	110.	98.
76-05-29	1245	325	.07	78.0	0.0	8.1	8.1	43.	105.	41.
76-06-14	1200	325	.10	87.6	0.0	8.1	8.2	3.	128.	2.
76-06-16	0930	325	.08	89.1	0.0	8.2	8.0	10.	112.	8.
76-08-04	1315	325	.08	124.0	0.0	8.3	--	LO.	164.	LO.
76-08-05	1110	325	.08	122.0	0.0	8.3	--	1.	176.	LO.
76-09-11	1210	325	.08	131.0	0.0	8.1	8.2	1.	179.	LO.
76-09-12	1125	325	.09	132.0	0.0	8.1	8.2	1.	149.	LO.
76-09-13	1045	325	.09	130.0	0.0	8.0	8.1	2.	172.	1.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10551L RESIDUE FIXED FILTERABLE MG/L	10603L HARDNESS TOTAL CACO3 MG/L	11103L SODIUM DISSOLVED NA MG/L	12101L MAGNESIUM DISSOLVED (CALCD.) MG MG/L	14105L SILICA REACTIVE SIO2 MG/L	15102R PHOSPHORUS TOTAL DISSOLVED P MG/L	151021 PHOSPHORUS TOTAL DISSOLVED P MG/L	151022 PHOSPHORUS TOTAL DISSOLVED P MG/L
75-08-20	1515	325	--	138.0	.6	10.6	4.5	--	--	--
76-04-12	0930	325	49.	106.0	.6	6.6	4.4	.009	.007	.007
76-05-27	1000	325	91.	89.0	.6	6.2	4.3	.008	.008	.008
76-05-28	1600	325	98.	78.3	.5	5.7	4.0	--	--	--
76-05-29	1245	325	85.	82.9	.7	5.1	4.2	--	--	--
76-06-14	1200	325	68.	91.2	.6	4.0	4.1	.006	.007	.006
76-06-16	0930	325	68.	92.2	.7	5.5	4.4	.008	.009	.007
76-08-04	1315	325	98.	127.0	.7	7.4	4.7	.006	.006	.005
76-08-05	1110	325	90.	125.0	.7	7.9	4.7	.005	.005	.005
76-09-11	1210	325	114.	133.0	.7	8.4	4.8	.005	.005	.005
76-09-12	1125	325	112.	132.0	.7	8.0	4.8	.004	.005	.005
76-09-13	1045	325	113.	134.0	.8	8.6	4.8	--	--	--

84-04-26

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0002
FLATHEAD RIVER . 0.8 MILES EAST OF MARL LAKE .
(INTERPRETIVE REPORT STATION 1)

LAT. 49D 7M 14S LONG. 114D 29M 39S
BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	151023 PHOSPHORUS TOTAL DISSOLVED P MG/L	15406R PHOSPHORUS TOTAL P MG/L	154061 PHOSPHORUS TOTAL P MG/L	154062 PHOSPHORUS TOTAL P MG/L	154063 PHOSPHORUS TOTAL P MG/L	154064 PHOSPHORUS TOTAL P MG/L	154065 PHOSPHORUS TOTAL P MG/L	154066 PHOSPHORUS TOTAL P MG/L
75-08-20	1515	325	--	.005	.004	.006	.003	.008	.003	.004
76-04-12	0930	325	.012	.071	.075	.068	.066	.068	.080	--
76-05-27	1000	325	.008	.040	.041	.040	.037	.041	.040	.040
76-05-28	1600	325	--	.087	.087	.083	.095	.094	.082	.081
76-05-29	1245	325	--	.046	.035	.046	.048	.045	.052	.050
76-06-14	1200	325	.006	.017	.018	.015	015	.012	.024	.016
76-06-16	0930	325	.009	.014	.013	.014	.016	.011	.015	.012
76-08-04	1315	325	.006	.005	.005	.004	.005	.006	.006	.005
76-08-05	1110	325	.006	.007	.005	.012	.007	.008	.007	.005
76-09-11	1210	325	.004	.005	.005	.006	.006	.006	.004	.005
76-09-12	1125	325	.003	.007	.004	.004	.016	.005	.005	.005
76-09-13	1045	325	--	.005	.005	.007	.004	.005	.006	.004

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	16306L SULPHATE DISSOLVED SO4 MG/L	17206L CHLORIDE DISSOLVED CL MG/L	19103L POTASSIUM DISSOLVED K MG/L	20101L CALCIUM DISSOLVED CA MG/L	25304P MANGANESE EXTRBLE. MN MG/L	26305P IRON EXTRBLE. FE MG/L	27302P COBALT EXTRBLE. CO MG/L	28302P NICKEL EXTRBLE. NI MG/L
75-08-20	1515	325	5.5	.3	.3	37.8	L.01	.012	--	--
76-04-12	0930	325	3.9	.3	.3	31.5	.02	.26 04P	L.001	L.001
76-05-27	1000	325	2.9	.2	.3	25.4	L.01	.08 04P	L.001	L.001
76-05-28	1600	325	2.3	.3	.4	21.9	.04	.25 04P	L.001	L.001
76-05-29	1245	325	2.5	.2	.3	24.8	.01	.10 04P	L.001	L.001
76-06-14	1200	325	2.7	.2	.3	30.0	L.01	.07 04P	.001	L.001
76-06-16	0930	325	3.2	L.2	.3	27.8	--	--	--	--
76-08-04	1315	325	3.9	.3	.4	38.6	L.01	.014	L.001	L.001
76-08-05	1110	325	3.9	.3	.3	37.0	L.01	.016	L.001	L.001
76-09-11	1210	325	4.3	.3	.3	39.4	L.01	.007	L.001	L.001
76-09-12	1125	325	4.2	.2	.3	39.7	L.01	.009	L.001	L.001
76-09-13	1045	325	4.2	.3	.3	39.5	L.01	.006	L.001	L.001

84-04-26

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0002
FLATHEAD RIVER . 0.8 MILES EAST OF MARL LAKE .
(INTERPRETIVE REPORT STATION 1)

LAT. 49D 7M 14S LONG. 114D 29M 39S
BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	29305P COPPER EXTRBLE. CU MG/L	30305P ZINC EXTRBLE. ZN MG/L	33304L ARSENIC EXTRBLE. AS MG/L	34302L SELENIUM EXTRBLE. SE MG/L	48302P CADMIUM EXTRBLE. CD MG/L	56302P BARIUM EXTRBLE. BA MG/L	80311P MERCURY EXTRBLE. HG UG/L	82302P LEAD EXTRBLE. PB MG/L
75-08-20	1515	325	L.001	L.001	.0004	.0001	L.0002	--	L.05	L.001
76-04-12	0930	325	.001	.001	.0005	.0001	L.0002	.29	L.05	.001
76-05-27	1000	325	L.001	L.001	.0002	.0001	L.0002	.09	L.05	L.001
76-05-28	1600	325	L.001	.001	.0004	.0001	L.0002	.14	L.05	.001
76-05-29	1245	325	L.001	L.001	.0002	L.0001	L.0002	.16	L.05	L.001
76-06-14	1200	325	L.001	L.001	.0003	.0001	L.0002	.12	L.05	L.001
76-06-16	0930	325	--	--	.0004	.0001	--	--	--	--
76-08-04	1315	325	L.001	L.001	.0002	.0001	L.0002	.13	L.05	L.001
76-08-05	1110	325	L.001	L.001	.0003	L.0001	L.0002	.12	L.05	L.001
76-09-11	1210	325	L.001	L.001	.0004	.0001	L.0002	.22	L.05	L.001
76-09-12	1125	325	L.001	L.001	.0003	.0001	L.0002	.21	L.05	L.001
76-09-13	1045	325	L.001	.003	.0002	.0001	L.0002	.19	--	L.001

FOOTNOTE: L - LESS THAN DETECTION LIMIT G - GREATER THAN MEASUREMENT LIMIT
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION G - PLUS GRAND QUE LA LIMITE MESURE

84-04-13

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0003
FLATHEAD RIVER, 0.3 KM ABOVE
BRITISH COLUMBIA.

LAT. 49D 0M 15S LONG. 114D 28M 45S
U.S.A. - CANADA BORDER CROSSING.
WATER SURVEY SITE -08NP0001,
(INTERPRETIVE REPORT STATION 3)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02011L COLOUR APPARENT REL. UNITS	02041L SPECIFIC CONDUCT. USIE/CM	02041S SPECIFIC CONDUCT. USIE/CM	02061L TEMP. WATER DEG.C.	02061S TEMP. WATER DEG.C.	02073L TURBIDITY JTU	06001R CARBON TOTAL ORGANIC C MG/L	06001I CARBON TOTAL ORGANIC C MG/L
75-08-20	1340	325	L5.	249.	260.	22.1	14.0	.4	L1.0	L1.0
75-12-18	1200	325	L5.	230.	--	23.1	0.0	.8	1.3	.8
76-02-05	1200	325	L5.	288.	--	21.2	--	1.3	1.4	.8
76-04-10	1330	325	15.	220.	260.	22.6	4.0	42.0	2.4	.9
76-04-12	1345	325	15.	198.	265.	22.6	4.0	45.0	4.1	4.4
76-04-13	1330	325	12.	193.	220.	22.5	2.0	52.0	2.7	1.4
76-05-27	1130	325	5.	178.	220.	22.7	7.0	8.7	5.5	4.7
76-05-28	1315	325	15.	157.	180.	22.8	6.5	72.0	8.2	8.9
76-05-29	1115	325	7.	167.	180.	22.8	5.0	35.0	2.8	3.8
76-06-14	1530	325	L5.	177.	200.	19.3	8.2	1.9	4.3	2.6
76-06-15	0900	325	L5.	176.	190.	19.5	6.8	2.6	3.7	5.1
76-06-16	1030	325	L5.	160.	200.	18.8	7.0	.7	2.1	2.8
76-08-04	1145	325	5.	224.	245.	19.6	13.5	.5	2.7	3.1
76-08-05	0950	325	L5.	223.	260.	19.7	11.5	.7	2.1	2.0
76-09-11	0845	325	5.	246.	270.	22.0	7.5	.4	L1.0	L1.0
76-09-12	1030	325	L5.	248.	300.	22.0	9.0	.5	L1.0	L1.0
76-09-13	0945	325	L5.	252.	300.	22.0	8.0	.4	1.2	1.1
80-08-26	1330	325	L5.	268.	--	21.4	--	.4	L1.0	L1.0
82-07-28	1309	325	L5.	223.	--	21.5	--	.5	--	--
	1310	325	L5.	225.	--	21.5	--	.3	L1.7	L1.6

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0003 FLATHEAD RIVER, 0.3 KM ABOVE BRITISH COLUMBIA. LAT. 49D 0M 15S LONG. 114D 28M 45S U.S.A. - CANADA BORDER CROSSING. WATER SURVEY SITE -08NP0001. (INTERPRETIVE REPORT STATION 3)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060012 CARBON TOTAL ORGANIC C MG/L	060013 CARBON TOTAL ORGANIC C MG/L	060014 CARBON TOTAL ORGANIC C MG/L	060015 CARBON TOTAL ORGANIC C MG/L	060016 CARBON TOTAL ORGANIC C MG/L	06051R CARBON TOTAL INORGANIC C MG/L	060511 CARBON TOTAL INORGANIC C MG/L	060512 CARBON TOTAL INORGANIC C MG/L
75-08-20	1340	325	L1.0	L1.0	L1.0	L1.0	L1.0	33.7	33.7	33.8
75-12-18	1200	325	.1	2.2	1.5	1.3	2.2	27.4	28.4	28.1
76-02-05	1200	325	1.0	2.5	--	--	--	32.9	33.4	33.2
76-04-10	1330	325	3.4	2.8	2.5	--	--	27.8	29.6	27.1
76-04-12	1345	325	3.8	--	--	--	--	25.2	25.2	25.2
76-04-13	1330	325	4.7	2.6	2.2	--	--	24.9	25.2	24.0
76-05-27	1130	325	6.1	7.8	3.4	5.8	5.0	21.2	21.0	21.0
76-05-28	1315	325	8.0	7.4	9.5	8.5	6.8	19.3	19.0	19.0
76-05-29	1115	325	1.5	3.1	2.5	1.8	4.1	21.3	21.0	22.0
76-06-14	1530	325	3.9	5.1	7.8	4.5	1.7	19.8	21.0	20.0
76-06-15	0900	325	4.0	4.5	2.7	3.3	2.7	20.8	20.0	20.0
76-06-16	1030	325	1.4	2.5	1.9	1.9	1.9	21.3	21.0	22.0
76-08-04	1145	325	2.7	3.8	1.8	3.4	1.5	26.7	26.0	27.0
76-08-05	0950	325	3.6	1.1	1.3	L1.0	3.7	28.0	27.0	26.0
76-09-11	0845	325	L1.0	L1.0	L1.0	L1.0	L1.0	34.8	34.0	35.0
76-09-12	1030	325	L1.0	L1.0	L1.0	L1.0	L1.0	32.8	31.0	33.0
76-09-13	0945	325	L1.0	L1.0	L1.0	1.1	1.7	32.3	32.0	32.0
80-08-26	1330	325	L1.0	L1.0	--	--	--	31.3	31.0	31.0
82-07-28	1310	325	L1.7	L1.7	--	--	--	31.0	32.0	30.0

84-04-13

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0003
FLATHEAD RIVER, 0.3 KM ABOVE U.S.A. - CANADA BORDER CROSSING. LAT 49D 0M 15S LONG. 114D 28M 45S
BRITISH COLUMBIA. (INTERPRETIVE REPORT STATION 3) WATER SURVEY SITE -08NP0001.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060513 CARBON TOTAL INORGANIC C MG/L	060514 CARBON TOTAL INORGANIC C MG/L	060515 CARBON TOTAL INORGANIC C MG/L	060516 CARBON TOTAL INORGANIC C MG/L	06536R PHENOLIC MATERIAL PHENOL MG/L	065361 PHENOLIC MATERIAL PHENOL MG/L	065362 PHENOLIC MATERIAL PHENOL MG/L	065363 PHENOLIC MATERIAL PHENOL MG/L
75-08-20	1340	325	33.5	33.5	33.7	33.8	--	--	--	--
75-12-18	1200	325	26.9	27.2	26.9	27.1	--	--	--	--
76-02-05	1200	325	32.2	--	--	--	--	--	--	--
76-04-10	1330	325	26.8	27.7	--	--	L.0005	L.0005	L.0005	L.0005
76-04-12	1345	325	--	--	--	--	L.0005	L.0005	L.0005	L.0005
76-04-13	1330	325	24.6	25.9	--	--	L.0005	L.0005	L.0005	L.0005
76-05-27	1130	325	21.0	22.0	21.0	21.0	L.0005	L.0005	L.0005	L.0005
76-05-28	1315	325	19.0	19.0	20.0	20.0	L.0005	L.0005	L.0005	L.0005
76-05-29	1115	325	22.0	21.0	22.0	20.0	L.0005	L.0005	L.0005	L.0005
76-06-14	1530	325	20.0	18.0	20.0	20.0	L.0005	L.0005	L.0005	L.0005
76-06-15	0900	325	20.0	22.0	21.0	22.0	--	--	--	--
76-06-16	1030	325	21.0	22.0	21.0	21.0	L.0005	L.0005	L.0005	L.0005
76-08-04	1145	325	26.0	28.0	26.0	27.0	L.0005	L.0005	L.0005	--
76-08-05	0950	325	29.0	29.0	30.0	27.0	L.0005	L.0005	L.0005	--
76-09-11	0845	325	35.0	35.0	35.0	35.0	L.0005	L.0005	L.0005	L.0005
76-09-12	1030	325	33.0	33.0	33.0	34.0	--	--	--	--
76-09-13	0945	325	32.0	32.0	33.0	33.0	--	--	--	--
80-08-26	1330	325	32.0	--	--	--	--	--	--	--
82-07-28	1310	325	31.0	--	--	--	--	--	--	--

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0003 LAT. 49D 0M 15S LONG. 114D 28M 45S
FLATHEAD RIVER, 0.3 KM ABOVE U.S.A. - CANADA BORDER CROSSING. WATER SURVEY SITE -08NP0001,
BRITISH COLUMBIA. (INTERPRETIVE REPORT STATION 3)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	06552L TANNIN AND LIGNIN LIG.SULPH. MG/L	06903L CARBON PARTICULATE C MG/L	069031 CARBON PARTICULATE C MG/L	069032 CARBON PARTICULATE C MG/L	069033 CARBON PARTICULATE C MG/L	07110R NITROGEN DISSOLVED NO3 & NO2 N MG/L	07110I NITROGEN DISSOLVED NO3 & NO2 N MG/L	07110Z NITROGEN DISSOLVED NO3 & NO2 N MG/L
75-08-20	1340	325	.05	.160	--	--	--	.019	.005	.012
75-12-18	1200	325	--	--	--	--	--	.048	.061	.060
76-02-05	1200	325	--	--	--	--	--	.008	.006	.006
76-04-10	1330	325	--	--	--	--	--	.052	.050	.057
76-04-12	1345	325	--	--	--	--	--	.061	.065	.057
76-04-13	1330	325	--	--	--	--	--	.063	.063	.063
76-05-27	1130	325	--	--	--	--	--	.017	.012	.013
76-05-28	1315	325	--	--	--	--	--	.014	.016	.013
76-05-29	1115	325	--	--	--	--	--	.014	.012	.013
76-06-14	1530	325	--	--	--	--	--	L.002	L.002	.002
76-06-15	0900	325	--	--	--	--	--	L.002	L.002	L.002
76-06-16	1030	325	--	--	--	--	--	.007	.007	.008
76-08-04	1145	325	--	--	--	--	--	.002	L.002	L.002
76-08-05	0950	325	--	--	--	--	--	.018	.031	.016
76-09-11	0845	325	--	--	--	--	--	.009	.015	.008
76-09-12	1030	325	--	--	--	--	--	.006	.014	.004
76-09-13	0945	325	--	--	--	--	--	.026	.003	.032
80-08-26	1330	325	--	.165 03R	.101	.290	.103	.024	.006	.034
82-07-28	1310	325	--	.113 03R	.107	.115	.117	L.002	L.002	L.002

84-04-13

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0003 LAT. 49D 0M 15S LONG. 114D 28M 45S
FLATHEAD RIVER, 0.3 KM ABOVE U.S.A. - CANADA BORDER CROSSING. WATER SURVEY SITE -08NP0001.
BRITISH COLUMBIA. (INTERPRETIVE REPORT STATION 3)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	071103 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071104 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071105 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071106 NITROGEN DISSOLVED NO3 & NO2 N MG/L	07557R NITROGEN DISSOLVED AMMONIA N MG/L	075571 NITROGEN DISSOLVED AMMONIA N MG/L	075572 NITROGEN DISSOLVED AMMONIA N MG/L	075573 NITROGEN DISSOLVED AMMONIA N MG/L
75-08-20	1340	325	.006	.014	.004	.070	.118	.038	.098	.076
75-12-18	1200	325	.033	.037	.062	.037	.013	.005	.022	.007
76-02-05	1200	325	.009	.005	.011	.008	.011	.007	.012	.014
76-04-10	1330	325	.051	.051	.053	.051	.014	.012	.012	.013
76-04-12	1345	325	--	--	--	--	.016	.016	.016	--
76-04-13	1330	325	.063	.063	.063	.063	.010	.008	.007	.014
76-05-27	1130	325	.012	.012	.042	.013	.013	.010	.015	.012
76-05-28	1315	325	.013	.013	.013	.013	.014	.018	.013	.012
76-05-29	1115	325	.022	.013	.013	.012	.011	.008	.013	.011
76-06-14	1530	325	L.002	L.002	L.002	.002	.008	.005	.008	.007
76-06-15	0900	325	L.002	.002	L.002	L.002	.010	.010	.010	.009
76-06-16	1030	325	L.002	.002	.018	.005	.007	.007	.008	.006
76-08-04	1145	325	L.002	.002	.004	--	.004	.002	.006	.004
76-08-05	0950	325	.003	.004	.003	.051	.007	.010	.006	.007
76-09-11	0845	325	.006	.006	.005	.011	.003	.007	L.001	L.001
76-09-12	1030	325	.004	.002	.004	.005	.012	.015	.015	.007
76-09-13	0945	325	.110	.003	.003	.006	.006	.004	.014	.012
80-08-26	1330	325	.033	--	--	--	L.002	L.002	L.002	L.002
82-07-28	1310	325	L.002	--	--	--	L.002	L.002	L.002	L.002

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0003 LAT. 49D 0M 15S LONG. 114D 28M 45S
FLATHEAD RIVER, 0.3 KM ABOVE U.S.A. - CANADA BORDER CROSSING. WATER SURVEY SITE -08NP0001.
BRITISH COLUMBIA. (INTERPRETIVE REPORT STATION 3)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	075574 NITROGEN DISSOLVED AMMONIA N MG/L	075575 NITROGEN DISSOLVED AMMONIA N MG/L	075576 NITROGEN DISSOLVED AMMONIA N MG/L	07651R NITROGEN DISSOLVED N MG/L	076511 NITROGEN DISSOLVED N MG/L	076512 NITROGEN DISSOLVED N MG/L	076513 NITROGEN DISSOLVED N MG/L	076514 NITROGEN DISSOLVED N MG/L
75-08-20	1340	325	.150	.043	.300	.24	.10	.22	.17	.27
75-12-18	1200	325	.027	.008	.010	.11	.12	.12	.08	.12
76-02-05	1200	325	.008	.014	.010	.05	.04	.04	.06	.04
76-04-10	1330	325	.014	.016	.016	.13	.14	.12	--	--
76-04-12	1345	325	--	--	--	.12	.12	.12	--	--
76-04-13	1330	325	.009	.009	.010	.12	.12	.12	--	--
76-05-27	1130	325	.011	.014	.013	.07	.06	.07	.06	.07
76-05-28	1315	325	.013	.012	.014	.08	.09	.08	.08	.08
76-05-29	1115	325	.011	.011	.012	.08	.07	.08	.09	.08
76-06-14	1530	325	.012	.009	.010	.05	.05	.04	.04	.05
76-06-15	0900	325	.010	.012	.011	.04	.04	.04	.04	.04
76-06-16	1030	325	.007	.007	.008	.05	.06	.05	.05	.04
76-08-04	1145	325	.004	.002	--	.07	.10	.07	.07	.05
76-08-05	0950	325	.005	.008	.005	05	.07	.07	.04	.03
76-09-11	0845	325	L.001	L.001	.006	.04	.08	.03	.03	.03
76-09-12	1030	325	.015	.010	.010	.05	.06	.05	.04	.04
76-09-13	0945	325	.002	.002	.004	.06	.03	.08	.18	.03

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NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0003
FLATHEAD RIVER, 0.3 KM ABOVE
BRITISH COLUMBIA.

LAT. 49D 0M 15S LONG. 114D 28M 45S
U.S.A. - CANADA BORDER CROSSING.
(INTERPRETIVE REPORT STATION 3)
WATER SURVEY SITE -08NP0001.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	076515 NITROGEN DISSOLVED N MG/L	076516 NITROGEN DISSOLVED N MG/L	07655R NITROGEN TOTAL DISSOLVED N MG/L	076551 NITROGEN TOTAL DISSOLVED N MG/L	076552 NITROGEN TOTAL DISSOLVED N MG/L	076553 NITROGEN TOTAL DISSOLVED N MG/L	07903L NITROGEN PARTICULATE N MG/L	079031 NITROGEN PARTICULATE N MG/L
75-08-20	1340	325	.11	.55	--	--	--	--	.018	--
75-12-18	1200	325	.11	.08	--	--	--	--	--	--
76-02-05	1200	325	.06	.05	--	--	--	--	--	--
76-05-27	1130	325	.11	.06	--	--	--	--	--	--
76-05-28	1315	325	.08	.09	--	--	--	--	--	--
76-05-29	1115	325	.07	.08	--	--	--	--	--	--
76-06-14	1530	325	.05	.05	--	--	--	--	--	--
76-06-15	0900	325	.04	.04	--	--	--	--	--	--
76-06-16	1030	325	.08	.04	--	--	--	--	--	--
76-08-04	1145	325	.05	--	--	--	--	--	--	--
76-08-05	0950	325	.03	.08	--	--	--	--	--	--
76-09-11	0845	325	.03	.05	--	--	--	--	--	--
76-09-12	1030	325	.04	.04	--	--	--	--	--	--
76-09-13	0945	325	.03	.03	--	--	--	--	--	--
80-08-26	1330	325	--	--	.057	.040	.065	.065	.007 03R	L.007
82-07-28	1310	325	--	--	.033	.030	.035	.033	.004 03R	.003

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0003 LAT. 49D 0M 15S LONG. 114D 28M 45S
FLATHEAD RIVER, 0.3 KM ABOVE U.S.A. - CANADA BORDER CROSSING. WATER SURVEY SITE -08NP0001,
BRITISH COLUMBIA. (INTERPRETIVE REPORT STATION 3)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	079032 NITROGEN PARTICULATE N MG/L	079033 NITROGEN PARTICULATE N MG/L	09106L FLUORIDE DISSOLVED F MG/L	091061 FLUORIDE DISSOLVED F MG/L	091062 FLUORIDE DISSOLVED F MG/L	091063 FLUORIDE DISSOLVED F MG/L	091064 FLUORIDE DISSOLVED F MG/L	091065 FLUORIDE DISSOLVED F MG/L
75-08-20	1340	325	--	--	.10	--	--	--	--	--
75-12-18	1200	325	--	--	.08 06R	.07	.08	.09	.07	.08
76-04-10	1330	325	--	--	.12	--	--	--	--	--
76-04-12	1345	325	--	--	.07	--	--	--	--	--
76-04-13	1330	325	--	--	.07	--	--	--	--	--
76-05-27	1130	325	--	--	.07	--	--	--	--	--
76-05-28	1315	325	--	--	.08	--	--	--	--	--
76-05-29	1115	325	--	--	.07	--	--	--	--	--
76-06-14	1530	325	--	--	.09	--	--	--	--	--
76-06-15	0900	325	--	--	.09	--	--	--	--	--
76-06-16	1030	325	--	--	.09	--	--	--	--	--
76-08-04	1145	325	--	--	.09	--	--	--	--	--
76-08-05	0950	325	--	--	.08	--	--	--	--	--
76-09-11	0845	325	--	--	.09	--	--	--	--	--
76-09-12	1030	325	--	--	.10	--	--	--	--	--
76-09-13	0945	325	--	--	.10	--	--	--	--	--
80-08-26	1330	325	.008	L.007	.08	--	--	--	--	--
82-07-28	1309	325	--	--	L.05	--	--	--	--	--
	1310	325	.005	.005	L.05	--	--	--	--	--

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NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0003
FLATHEAD RIVER, 0.3 KM ABOVE BRITISH COLUMBIA.
U.S.A. - CANADA BORDER CROSSING. (INTERPRETIVE REPORT STATION 3)
LAT. 49D 0M 15S LONG. 114D 28M 45S
WATER SURVEY SITE -08NP0001.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	09106G FLUORIDE DISSOLVED F MG/L	10101L ALKALINITY TOTAL CACO3 MG/L	10151L ALKALINITY PHENOL PHTHALEIN CACO3 MG/L	10301L PH PH UNITS	10301S PH PH UNITS	10401L RESIDUE NONFILTR. MG/L	10451L RESIDUE FILTERABLE MG/L	10501L RESIDUE FIXED NONFILTR. MG/L
75-08-20	1340	325	--	131.0	3.4	8.6	8.0	--	--	--
75-12-18	1200	325	.08	120.0	0.0	8.3	7.5	1.	216.	0.
76-02-05	1200	325	--	148.0	0.0	8.3	--	5.	172.	3.
76-04-10	1330	325	--	112.0	0.0	8.2	8.3	94.	129.	82.
76-04-12	1345	325	--	105.0	0.0	8.1	7.6	92.	140.	82.
76-04-13	1330	325	--	101.0	0.0	8.0	8.0	121.	122.	105.
76-05-27	1130	325	--	91.8	0.0	8.1	8.2	34.	120.	31.
76-05-28	1315	325	--	80.4	0.0	8.1	8.1	157.	104.	149.
76-05-29	1115	325	--	82.3	0.0	8.0	8.1	59.	62.	56.
76-06-14	1530	325	--	89.8	0.0	8.2	8.3	10.	124.	9.
76-06-15	0900	325	--	91.5	0.0	8.2	8.1	12.	140.	10.
76-06-16	1030	325	--	85.0	0.0	8.2	8.0	2.	92.	2.
76-08-04	1145	325	--	120.0	1.0	8.4	--	1.	156.	LO.
76-08-05	0950	325	--	120.0	0.0	8.3	--	2.	188.	4.
76-09-11	0845	325	--	130.0	0.0	8.3	8.2	1.	184.	1.
76-09-12	1030	325	--	130.0	0.0	8.2	8.2	1.	158.	LO.
76-09-13	0945	325	--	130.0	0.0	8.1	8.3	1.	164.	0.
80-08-26	1330	325	--	141.0	1.2	8.4	--	2.	92.	L1.
82-07-28	1309	325	--	121.0	0.0	8.2	--	--	--	--
	1310	325	--	121.3	0.0	8.3	--	--	--	--

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0003 LAT. 49D 0M 15S LONG. 114D 28M 45S
FLATHEAD RIVER, 0.3 KM ABOVE U.S.A. - CANADA BORDER CROSSING. WATER SURVEY SITE -08NP0001,
BRITISH COLUMBIA. (INTERPRETIVE REPORT STATION 3)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10551L RESIDUE FIXED FILTERABLE MG/L	10603L HARDNESS TOTAL CACO3 MG/L	11103L SODIUM DISSOLVED NA MG/L	12101L MAGNESIUM DISSOLVED (CALCD.) MG MG/L	14105L SILICA REACTIVE SIO2 MG/L	141051 SILICA REACTIVE SIO2 MG/L	141052 SILICA REACTIVE SIO2 MG/L	141053 SILICA REACTIVE SIO2 MG/L
75-08-20	1340	325	--	136.0	.6	11.2	4.7	--	--	--
75-12-18	1200	325	78.	126.0	.7	8.4	4.8 05R	4.9	4.8	4.7
76-02-05	1200	325	160.	160.0	.9	10.4	5.3 05R	5.2	5.3	--
76-04-10	1330	325	87.	115.0	.8	7.6	4.8	--	--	--
76-04-12	1345	325	58.	106.0	.7	7.0	4.8	--	--	--
76-04-13	1330	325	30.	104.0	.7	6.8	4.8	--	--	--
76-05-27	1130	325	76.	95.1	.6	6.3	4.6	--	--	--
76-05-28	1315	325	74.	83.9	.6	5.0	4.3	--	--	--
76-05-29	1115	325	62.	87.0	.7	5.7	4.3	--	--	--
76-06-14	1530	325	76.	93.4	.7	5.8	4.3	--	--	--
76-06-15	0900	325	76.	94.7	.7	5.9	4.4	--	--	--
76-06-16	1030	325	52.	87.8	.7	5.3	4.0	--	--	--
76-08-04	1145	325	108.	123.0	.7	6.8	5.0	--	--	--
76-08-05	0950	325	124.	124.0	.7	7.1	4.9	--	--	--
76-09-11	0845	325	118.	133.0	.7	8.4	5.1	--	--	--
76-09-12	1030	325	120.	132.0	.8	8.3	5.0	--	--	--
76-09-13	0945	325	110.	133.0	.8	8.4	5.0	--	--	--
80-08-26	1330	325	79.	146.0	.3	8.9	4.8	--	--	--
82-07-28	1309	325	--	126.1	.7	7.9	4.5	--	--	--
	1310	325	--	125.9	.7	7.8	4.5	--	--	--

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NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0003 LAT. 49D 0M 15S LONG. 114D 28M 45S
FLATHEAD RIVER, 0.3 KM ABOVE U.S.A. - CANADA BORDER CROSSING. WATER SURVEY SITE -08NP0001.
BRITISH COLUMBIA. (INTERPRETIVE REPORT STATION 3)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	141054 SILICA REACTIVE SIO2 MG/L	141055 SILICA REACTIVE SIO2 MG/L	141056 SILICA REACTIVE SIO2 MG/L	15102R PHOSPHORUS TOTAL DISSOLVED P MG/L	151021 PHOSPHORUS TOTAL DISSOLVED P MG/L	151022 PHOSPHORUS TOTAL DISSOLVED P MG/L	151023 PHOSPHORUS TOTAL DISSOLVED P MG/L	15406R PHOSPHORUS TOTAL P MG/L
75-08-20	1340	325	--	--	--	--	--	--	--	.005
75-12-18	1200	325	4.8	4.7	4.9	--	--	--	--	.008
76-02-05	1200	325	--	--	--	--	--	--	--	.760
76-04-10	1330	325	--	--	--	.011	.007	.015	--	.104
76-04-12	1345	325	--	--	--	--	--	--	--	.102
76-04-13	1330	325	--	--	--	.009	.007	.014	.006	.121
76-05-27	1130	325	--	--	--	.008	.008	.010	.007	.036
76-05-28	1315	325	--	--	--	.010	.009	.010	.011	.130
76-05-29	1115	325	--	--	--	.009	.010	.010	.008	.056
76-06-14	1530	325	--	--	--	.006	.006	.006	.006	.025
76-06-15	0900	325	--	--	--	.013	.009	.007	.022	.024
76-06-16	1030	325	--	--	--	.008	.008	.008	.008	.023
76-08-04	1145	325	--	--	--	.006	.006	.005	.007	.008
76-08-05	0950	325	--	--	--	.006	.007	.006	.005	.009
76-09-11	0845	325	--	--	--	.005	.005	.005	.004	.007
76-09-12	1030	325	--	--	--	.005	.004	.006	.004	.008
76-09-13	0945	325	--	--	--	.005	.005	.005	--	.006
80-08-26	1330	325	--	--	--	--	--	--	--	.002
82-07-28	1310	325	--	--	--	.002	.002	.002	L .002	.005

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NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0003 LAT. 49D 0M 15S LONG. 114D 28M 45S
FLATHEAD RIVER, 0.3 KM ABOVE U.S.A. - CANADA BORDER CROSSING. WATER SURVEY SITE -08NP0001,
BRITISH COLUMBIA. (INTERPRETIVE REPORT STATION 3)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	154061 PHOSPHORUS TOTAL P MG/L	154062 PHOSPHORUS TOTAL P MG/L	154063 PHOSPHORUS TOTAL P MG/L	154064 PHOSPHORUS TOTAL P MG/L	154065 PHOSPHORUS TOTAL P MG/L	154066 PHOSPHORUS TOTAL P MG/L	16306L SULPHATE DISSOLVED SO4 MG/L	17206L CHLORIDE DISSOLVED CL MG/L
75-08-20	1340	325	.005	.005	.004	.005	.005	.004	4.8	.4
75-12-18	1200	325	.010	.009	.008	.007	.007	.009	7.1	.5
76-02-05	1200	325	.012	.008	.023	.350	.013	4.155	6.1	.3
76-04-10	1330	325	.102	.099	.161	.104	.095	.060	5.5	.3
76-04-12	1345	325	.112	.106	.103	.092	.093	.107	4.7	.5
76-04-13	1330	325	.112	.125	.112	.117	.149	.109	4.3	.3
76-05-27	1130	325	.036	.032	.034	.037	.037	.040	3.2	.3
76-05-28	1315	325	.129	.128	.130	.140	.130	.122	2.6	.3
76-05-29	1115	325	.053	.058	.058	.052	.057	.057	3.3	.3
76-06-14	1530	325	.025	.027	.025	.024	.027	.024	3.5	.2
76-06-15	0900	325	.022	.023	.026	.023	.024	.024	3.3	.2
76-06-16	1030	325	.020	.022	.021	.021	.021	.030	2.8	.2
76-08-04	1145	325	.009	.010	.006	.010	.007	.006	4.2	.3
76-08-05	0950	325	.010	.009	.008	.008	.011	.008	4.1	.3
76-09-11	0845	325	.007	.005	.009	.006	.007	.007	4.6	.3
76-09-12	1030	325	.008	.006	.007	.006	.013	.007	4.5	.3
76-09-13	0945	325	.006	.005	.009	.005	.005	.008	5.0	.3
80-08-26	1330	325	.002	.004	.002	--	--	--	4.9	.3
82-07-28	1309	325	--	--	--	--	--	--	3.4	L.2
	1310	325	.004	.005	--	--	--	--	3.5	L.2

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NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0003
FLATHEAD RIVER, 0.3 KM ABOVE BRITISH COLUMBIA.

LAT. 49D 0M 15S LONG. 114D 28M 45S
U.S.A. - CANADA BORDER CROSSING. WATER SURVEY SITE -08NP0001.
(INTERPRETIVE REPORT STATION 3)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	19103L POTASSIUM DISSOLVED K MG/L	20101L CALCIUM DISSOLVED CA MG/L	25304P MANGANESE EXTRBLE. MN MG/L	253041 MANGANESE EXTRBLE. MN MG/L	253042 MANGANESE EXTRBLE. MN MG/L	253043 MANGANESE EXTRBLE. MN MG/L	26305P IRON EXTRBLE. FE MG/L	263051 IRON EXTRBLE. FE MG/L
75-08-20	1340	325	.3	36.0	L.01	--	--	--	.032	--
75-12-18	1200	325	.2	36.6	L.01	--	--	--	.026	--
76-02-05	1200	325	.3	47.0	L.01	--	--	--	.07 04P	--
76-04-10	1330	325	.4	33.5	.05	--	--	--	.60 04P	--
76-04-12	1345	325	.4	30.9	.05	--	--	--	.63 04P	--
76-04-13	1330	325	.3	30.5	.01	--	--	--	.56 04P	--
76-05-27	1130	325	.3	27.7	.01	--	--	--	.18 04P	--
76-05-28	1315	325	.4	25.4	.04	--	--	--	.16 04P	--
76-05-29	1115	325	.4	25.4	.02	--	--	--	.23 04P	--
76-06-14	1530	325	.3	27.8	.01	--	--	--	.19 04P	--
76-06-15	0900	325	.3	28.2	L.01	--	--	--	.18 04P	--
76-06-16	1030	325	.3	26.5	.01	--	--	--	.13 04P	--
76-08-04	1145	325	.3	38.0	L.01	--	--	--	.040	--
76-08-05	0950	325	.3	38.0	L.01	--	--	--	.036	--
76-09-11	0845	325	.3	39.4	L.01	--	--	--	.017	--
76-09-12	1030	325	.4	39.2	L.01	--	--	--	.014	--
76-09-13	0945	325	.4	39.4	L.01	--	--	--	.006	--
80-08-26	1330	325	.2	43.8	L.01 04R	L.01	L.01	L.01	.014 05R	.014
82-07-28	1309	325	.2	37.5	--	--	--	--	--	--
	1310	325	.2	37.5	L.01 04R	L.01	L.01	--	.025 05R	.025

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0003 LAT. 49D 0M 15S LONG. 114D 28M 45S
FLATHEAD RIVER, 0.3 KM ABOVE U.S.A. - CANADA BORDER CROSSING. WATER SURVEY SITE -08NP0001,
BRITISH COLUMBIA. (INTERPRETIVE REPORT STATION 3)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	263052 IRON EXTRBLE. FE MG/L	263053 IRON EXTRBLE. FE MG/L	27302P COBALT EXTRBLE. CO MG/L	28302P NICKEL EXTRBLE. NI MG/L	283021 NICKEL EXTRBLE. NI MG/L	283022 NICKEL EXTRBLE. NI MG/L	283023 NICKEL EXTRBLE. NI MG/L	29305P COPPER EXTRBLE. CU MG/L
75-08-20	1340	325	--	--	--	--	--	--	--	.004
75-12-18	1200	325	--	--	L.001	L.001	--	--	--	L.001
76-02-05	1200	325	--	--	L.001	.002	--	--	--	.002
76-04-10	1330	325	--	--	L.001	.001	--	--	--	.001
76-04-12	1345	325	--	--	L.001	L.001	--	--	--	002
76-04-13	1330	325	--	--	L.001	L.001	--	--	--	.002
76-05-27	1130	325	--	--	L.001	L.001	--	--	--	L.001
76-05-28	1315	325	--	--	L.001	L.001	--	--	--	L.001
76-05-29	1115	325	--	--	L.001	L.001	--	--	--	L.001
76-06-14	1530	325	--	--	L.001	L.001	--	--	--	L.001
76-06-15	0900	325	--	--	L.001	L.001	--	--	--	L.001
76-06-16	1030	325	--	--	.001	L.001	--	--	--	L.001
76-08-04	1145	325	--	--	L.001	.001	--	--	--	L.001
76-08-05	0950	325	--	--	L.001	L.001	--	--	--	L.001
76-09-11	0845	325	--	--	L.001	L.001	--	--	--	L.001
76-09-12	1030	325	--	--	L.001	L.001	--	--	--	L.001
76-09-13	0945	325	--	--	L.001	L.001	--	--	--	L.001
80-08-26	1330	325	.013	.015	--	L.001 02R	L.001	L.001	L.001	L.001 05R
82-07-28	1310	325	.024	--	--	--	--	--	--	.002 05R

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NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0003
FLATHEAD RIVER, 0.3 KM ABOVE U.S.A. - CANADA BORDER CROSSING. LAT. 49D 0M 15S LONG. 114D 28M 45S
BRITISH COLUMBIA. (INTERPRETIVE REPORT STATION 3) WATER SURVEY SITE -08NP0001.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	293051 COPPER EXTRBLE. CU MG/L	293052 COPPER EXTRBLE. CU MG/L	293053 COPPER EXTRBLE. CU MG/L	30305P ZINC EXTRBLE. ZN MG/L	303051 ZINC EXTRBLE. ZN MG/L	303052 ZINC EXTRBLE. ZN MG/L	303053 ZINC EXTRBLE. ZN MG/L	33304L ARSENIC EXTRBLE. AS MG/L
75-08-20	1340	325	--	--	--	L.001	--	--	--	.0003
75-12-18	1200	325	--	--	--	L.001	--	--	--	.0003
76-02-05	1200	325	--	--	--	.001	--	--	--	--
76-04-10	1330	325	--	--	--	.003	--	--	--	.0008
76-04-12	1345	325	--	--	--	.004	--	--	--	.0010
76-04-13	1330	325	--	--	--	.050	--	--	--	.0009
76-05-27	1130	325	--	--	--	L.001	--	--	--	.0003
76-05-28	1315	325	--	--	--	.001	--	--	--	.0005
76-05-29	1115	325	--	--	--	L.001	--	--	--	.0004
76-06-14	1530	325	--	--	--	L.001	--	--	--	.0004
76-06-15	0900	325	--	--	--	L.001	--	--	--	.0004
76-06-16	1030	325	--	--	--	L.001	--	--	--	.0003
76-08-04	1145	325	--	--	--	L.001	--	--	--	.0003
76-08-05	0950	325	--	--	--	L.001	--	--	--	.0003
76-09-11	0845	325	--	--	--	L.001	--	--	--	.0003
76-09-12	1030	325	--	--	--	L.001	--	--	--	.0003
76-09-13	0945	325	--	--	--	L.001	--	--	--	.0002
80-08-26	1330	325	L.001	L.001	.001	L.001 05R	L.001	L.001	L.001	--
82-07-28	1310	325	.002	L.001	--	L.001 05R	L.001	L.001	--	.0001

84-04-13

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0003 LAT. 49D 0M 15S LONG. 114D 28M 45S
FLATHEAD RIVER, 0.3 KM ABOVE U.S.A. - CANADA BORDER CROSSING. WATER SURVEY SITE -08NP0001,
BRITISH COLUMBIA. (INTERPRETIVE REPORT STATION 3)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	34302L SELENIUM EXTRBLE. SE MG/L	42302P MOLYBDENUM EXTRBLE. MO MG/L	48302P CADMIUM EXTRBLE. CD MG/L	483021 CADMIUM EXTRBLE. CD MG/L	483022 CADMIUM EXTRBLE. CD MG/L	483023 CADMIUM EXTRBLE. CD MG/L	56302P BARIUM EXTRBLE. BA MG/L	563011 BARIUM EXTRBLE. BA MG/L
75-08-20	1340	325	.0001	--	L.0002	--	--	--	--	--
75-12-18	1200	325	.0002	--	.0050	--	--	--	.23	--
76-02-05	1200	325	--	L.0005	L.0002	--	--	--	1.60	--
76-04-10	1330	325	.0002	--	L.0002	--	--	--	.34	--
76-04-12	1345	325	.0002	--	L.0002	--	--	--	.31	--
76-04-13	1330	325	.0002	--	.0040	--	--	--	.30	--
76-05-27	1130	325	.0001	--	L.0002	--	--	--	.11	--
76-05-28	1315	325	.0001	--	L.0002	--	--	--	.19	--
76-05-29	1115	325	.0001	--	L.0002	--	--	--	.16	--
76-06-14	1530	325	.0001	--	L.0002	--	--	--	.13	--
76-06-15	0900	325	.0001	--	L.0002	--	--	--	.12	--
76-06-16	1030	325	L.0001	--	L.0002	--	--	--	.15	--
76-08-04	1145	325	.0001	--	L.0002	--	--	--	.14	--
76-08-05	0950	325	.0001	--	L.0002	--	--	--	.13	--
76-09-11	0845	325	.0001	--	L.0002	--	--	--	.22	--
76-09-12	1030	325	.0001	--	L.0002	--	--	--	.22	--
76-09-13	0945	325	.0001	--	L.0002	--	--	--	.19	--
80-08-26	1330	325	--	--	L.0005 02R	L.0005	L.0005	L.0005	.20 01R	.20
82-07-28	1310	325	.0001	--	--	--	--	--	--	--

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NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0003
FLATHEAD RIVER, 0.3 KM ABOVE BRITISH COLUMBIA.

LAT. 49D 0M 15S LONG. 114D 28M 45S
U.S.A. - CANADA BORDER CROSSING. WATER SURVEY SITE -08NP0001.
(INTERPRETIVE REPORT STATION 3)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	563012 BARIUM EXTRBLE. BA MG/L	563013 BARIUM EXTRBLE. BA MG/L	80311P MERCURY EXTRBLE. HG UG/L	803111 MERCURY EXTRBLE. HG UG/L	803112 MERCURY EXTRBLE. HG UG/L	803113 MERCURY EXTRBLE. HG UG/L	82302P LEAD EXTRBLE. PB MG/L	823021 LEAD EXTRBLE. PB MG/L
75-08-20	1340	325	--	--	.08	--	--	--	L.001	--
75-12-18	1200	325	--	--	L.05	--	--	--	L.001	--
76-02-05	1200	325	--	--	L.05	--	--	--	L.001	--
76-04-10	1330	325	--	--	L.05	--	--	--	L.001	--
76-04-12	1345	325	--	--	L.05	--	--	--	.002	--
76-04-13	1330	325	--	--	L.05	--	--	--	L.001	--
76-05-27	1130	325	--	--	L.05	--	--	--	.001	--
76-05-28	1315	325	--	--	L.05	--	--	--	.001	--
76-05-29	1115	325	--	--	L.05	--	--	--	.001	--
76-06-14	1530	325	--	--	L.05	--	--	--	L.001	--
76-06-15	0900	325	--	--	L.05	--	--	--	L.001	--
76-06-16	1030	325	--	--	L.05	--	--	--	.001	--
76-08-04	1145	325	--	--	L.05	--	--	--	L.001	--
76-08-05	0950	325	--	--	L.05	--	--	--	L.001	--
76-09-11	0845	325	--	--	L.05	--	--	--	L.001	--
76-09-12	1030	325	--	--	L.05	--	--	--	L.001	--
76-09-13	0945	325	--	--	--	--	--	--	L.001	--
80-08-26	1330	325	.20	.20	L.05 11R	L.05	L.05	L.05	L.001 02R	L.001
82-07-28	1310	325	--	--	L.05 11R	L.05	L.05	--	L.001 02R	.001

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	823022 LEAD EXTRBLE. PB MG/L	823023 LEAD EXTRBLE. PB MG/L
80-08-26	1330	325	L.001	.001
82-07-28	1310	325	L.001	--

FOOTNOTE: L - LESS THAN DETECTION LIMIT G - GREATER THAN MEASUREMENT LIMIT
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION G - PLUS GRAND QUE LA LIMITE MESURE

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0004 LAT. 49D 5M 44S LONG. 114D 31M 59S
HOWELL CREEK . 0.25 MILES ABOVE CONFLUENCE WITH CABIN CREEK. ROAD BRIDGE.
BRITISH COLUMBIA. (INTERPRETIVE REPORT STATION 7)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02011L COLOUR APPARENT REL. UNITS	02041L SPECIFIC CONDUCT. USIE/CM	02041S SPECIFIC CONDUCT. USIE/CM	02061L TEMP. WATER DEG.C.	02061S TEMP. WATER DEG.C.	02073L TURBIDITY JTU	06001R CARBON TOTAL ORGANIC C MG/L	060011 CARBON TOTAL ORGANIC C MG/L
75-08-20	1130	325	L5.	254.	220.	22.0	10.0	.4	L1.0	L1.0
76-04-12	1200	325	L5.	238.	280.	22.5	3.0	1.5	2.9	2.6
76-05-27	1345	325	5.	225.	270.	22.7	9.0	2.6	4.8	1.8
76-06-15	1020	325	L5.	227.	260.	19.7	6.0	.5	1.3	2.2
76-08-05	1500	325	L5.	242.	--	19.8	10.0	.3	4.5	4.9
76-09-12	1510	325	5.	263.	300.	22.0	8.5	.4	L1.0	L1.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060012 CARBON TOTAL ORGANIC C MG/L	060013 CARBON TOTAL ORGANIC C MG/L	060014 CARBON TOTAL ORGANIC C MG/L	060015 CARBON TOTAL ORGANIC C MG/L	060016 CARBON TOTAL ORGANIC C MG/L	06051R CARBON TOTAL INORGANIC C MG/L	060511 CARBON TOTAL INORGANIC C MG/L	060512 CARBON TOTAL INORGANIC C MG/L
75-08-20	1130	325	L1.0	1.0	1.0	L1.0	L1.0	33.8	33.3	33.0
76-04-12	1200	325	2.9	3.1	2.9	--	--	28.8	28.9	28.9
76-05-27	1345	325	3.5	4.9	5.9	6.8	6.0	25.8	25.0	26.0
76-06-15	1020	325	1.3	L1.0	1.0	L1.0	L1.0	27.7	27.0	28.0
76-08-05	1500	325	2.3	4.4	7.0	4.6	3.7	27.0	27.0	30.0
76-09-12	1510	325	L1.0	L1.0	L1.0	L1.0	L1.0	34.0	34.0	34.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060513 CARBON TOTAL INORGANIC C MG/L	060514 CARBON TOTAL INORGANIC C MG/L	060515 CARBON TOTAL INORGANIC C MG/L	060516 CARBON TOTAL INORGANIC C MG/L	06536R PHENOLIC MATERIAL PHENOL MG/L	065361 PHENOLIC MATERIAL PHENOL MG/L	065362 PHENOLIC MATERIAL PHENOL MG/L	065363 PHENOLIC MATERIAL PHENOL MG/L
75-08-20	1130	325	32.9	33.2	34.9	35.3	--	--	--	--
76-04-12	1200	325	28.9	28.6	--	--	L.0005	L.0005	L.0005	L.0005
76-05-27	1345	325	26.0	26.0	26.0	26.0	L.0005	L.0005	L.0005	L.0005
76-06-15	1020	325	28.0	27.0	28.0	28.0	L.0005	L.0005	L.0005	--
76-08-05	1500	325	27.0	25.0	25.0	28.0	L.0005 36L	--	--	--
76-09-12	1510	325	34.0	34.0	34.0	34.0	--	--	--	--

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NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0004
HOWELL CREEK . 0.25 MILES ABOVE CONFLUENCE WITH CABIN CREEK. LAT. 49D 5M 44S LONG. 114D 31M 59S
BRITISH COLUMBIA. (INTERPRETIVE REPORT STATION 7) ROAD BRIDGE.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	06552L TANNIN AND LIGNIN LIG.SULPH. MG/L	06903L CARBON PARTICULATE C MG/L	07110R NITROGEN DISSOLVED NO3 & NO2 N MG/L	07110I NITROGEN DISSOLVED NO3 & NO2 N MG/L	07110Z NITROGEN DISSOLVED NO3 & NO2 N MG/L	07110J NITROGEN DISSOLVED NO3 & NO2 N MG/L	07110K NITROGEN DISSOLVED NO3 & NO2 N MG/L	07110L NITROGEN DISSOLVED NO3 & NO2 N MG/L
75-08-20	1130	325	.05	.220	.015	.007	.010	.016	.021	.016
76-04-12	1200	325	--	--	.053	.052	.056	.051	.052	.053
76-05-27	1345	325	--	--	.011	.008	.013	.007	.011	.007
76-06-15	1020	325	--	--	.014	.064	.002	.008	.002	.002
76-08-05	1500	325	--	--	.005	.003	L.002	.003	.013	.005
76-09-12	1510	325	--	--	.011	.010	.009	.012	.010	.010

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07110M NITROGEN DISSOLVED NO3 & NO2 N MG/L	07557R NITROGEN DISSOLVED AMMONIA N MG/L	07557I NITROGEN DISSOLVED AMMONIA N MG/L	07557Z NITROGEN DISSOLVED AMMONIA N MG/L	07557J NITROGEN DISSOLVED AMMONIA N MG/L	07557K NITROGEN DISSOLVED AMMONIA N MG/L	07557L NITROGEN DISSOLVED AMMONIA N MG/L	07557M NITROGEN DISSOLVED AMMONIA N MG/L
75-08-20	1130	325	.019	.075	.053	.051	.063	.073	.141	.067
76-04-12	1200	325	.052	.010	.008	.008	.008	.010	.012	.013
76-05-27	1345	325	.019	.009	.008	.007	.008	.009	.011	.010
76-06-15	1020	325	.008	.003	.007	.002	.002	.001	.002	.003
76-08-05	1500	325	.006	.010	.005	.005	.004	.031	.004	.010
76-09-12	1510	325	.013	.004	.004	.004	.004	.004	.005	.005

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07651R NITROGEN DISSOLVED N MG/L	07651I NITROGEN DISSOLVED N MG/L	07651Z NITROGEN DISSOLVED N MG/L	07651J NITROGEN DISSOLVED N MG/L	07651K NITROGEN DISSOLVED N MG/L	07651L NITROGEN DISSOLVED N MG/L	07651M NITROGEN DISSOLVED N MG/L	07903L NITROGEN PARTICULATE N MG/L
75-08-20	1130	325	.25	.12	.13	.21	.25	.35	.47	.019
76-04-12	1200	325	.10	.10	.10	--	--	--	--	--
76-05-27	1345	325	.06	.05	.10	.05	.05	.05	.07	--
76-06-15	1020	325	.06	.12	.04	.04	.04	.07	.07	--
76-08-05	1500	325	.05	.04	.04	.04	.07	.05	.06	--
76-09-12	1510	325	.04	.04	.04	.04	.03	.04	.04	--

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0004 LAT. 49D 5M 44S LONG. 114D 31M 59S
HOWELL CREEK . 0.25 MILES ABOVE CONFLUENCE WITH CABIN CREEK. ROAD BRIDGE.
BRITISH COLUMBIA. (INTERPRETIVE REPORT STATION 7)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	09106L FLUORIDE DISSOLVED F MG/L	10101L ALKALINITY TOTAL CACO3 MG/L	10151L ALKALINITY PHENOL PHTHALEIN CACO3 MG/L	10301L PH PH UNITS	10301S PH PH UNITS	10401L RESIDUE NONFILTR. MG/L	10451L RESIDUE FILTERABLE MG/L	10501L RESIDUE FIXED NONFILTR. MG/L
75-08-20	1130	325	.12	135.0	3.5	8.6	7.2	--	--	--
76-04-12	1200	325	.11	122.0	0.0	8.0	8.0	20.	258.	12.
76-05-27	1345	325	.09	116.0	0.0	8.2	8.4	14.	144.	12.
76-06-15	1020	325	.10	115.0	0.0	8.3	8.3	2.	152.	L1.
76-08-05	1500	325	.09	130.0	1.0	8.4	--	0.	228.	LO.
76-09-12	1510	325	.11	135.0	0.0	8.1	8.3	1.	183.	LO.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10551L RESIDUE FIXED FILTERABLE MG/L	10603L HARDNESS TOTAL CACO3 MG/L	11103L SODIUM DISSOLVED NA MG/L	12101L MAGNESIUM DISSOLVED (CALCD.) MG MG/L	14105L SILICA REACTIVE SIO2 MG/L	15102R PHOSPHORUS TOTAL DISSOLVED P MG/L	151021 PHOSPHORUS TOTAL DISSOLVED P MG/L	151022 PHOSPHORUS TOTAL DISSOLVED P MG/L
75-08-20	1130	325	--	140.0	.6	10.7	4.6	--	--	--
76-04-12	1200	325	80.	128.0	.5	8.2	4.8	--	--	--
76-05-27	1345	325	94.	121.0	.6	7.7	4.8	.006	.007	.005
76-06-15	1020	325	100.	122.0	.6	6.6	4.5	.010	.011	.009
76-08-05	1500	325	120.	132.0	.6	7.6	4.9	.007	.007	.007
76-09-12	1510	325	120.	141.0	.6	8.4	5.0	.008	.007	.009

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	151023 PHOSPHORUS TOTAL DISSOLVED P MG/L	15406R PHOSPHORUS TOTAL P MG/L	154061 PHOSPHORUS TOTAL P MG/L	154062 PHOSPHORUS TOTAL P MG/L	154063 PHOSPHORUS TOTAL P MG/L	154064 PHOSPHORUS TOTAL P MG/L	154065 PHOSPHORUS TOTAL P MG/L	154066 PHOSPHORUS TOTAL P MG/L
75-08-20	1130	325	--	.009	.008	.012	.008	.008	.008	.008
76-04-12	1200	325	--	.044	.042	.044	.044	.045	.044	.042
76-05-27	1345	325	.006	.016	.018	.011	.028	.013	.012	.013
76-06-15	1020	325	.009	.004	.002	.002	.004	.005	.005	.007
76-08-05	1500	325	.007	.009	.014	.008	.008	.009	.008	.009
76-09-12	1510	325	.007	.008	.011	.008	.008	.004	.010	.008

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NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0004 LAT. 49D 5M 44S LONG. 114D 31M 59S
HOWELL CREEK . 0.25 MILES ABOVE CONFLUENCE WITH CABIN CREEK. ROAD BRIDGE
BRITISH COLUMBIA. (INTERPRETIVE REPORT STATION 7)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	16306L SULPHATE DISSOLVED SO4 MG/L	17206L CHLORIDE DISSOLVED CL MG/L	19103L POTASSIUM DISSOLVED K MG/L	20101L CALCIUM DISSOLVED CA MG/L	25304P MANGANESE EXTRBLE. MN MG/L	26305P IRON EXTRBLE. FE MG/L	27302P COBALT EXTRBLE. CO MG/L	28302P NICKEL EXTRBLE. NI MG/L
75-08-20	1130	325	4.2	.4	.3	38.4	L.01	.023	--	--
76-04-12	1200	325	5.5	.4	.4	37.7	.02	.17 04P	L.001	L.001
76-05-27	1345	325	4.4	.3	.3	35.8	L.01	.06 04P	L.001	L.001
76-06-15	1020	325	4.3	.2	.3	37.6	L.01	.021	L.001	L.001
76-08-05	1500	325	4.2	.3	.3	40.4	L.01	.026	L.001	L.001
76-09-12	1510	325	4.7	.3	.4	42.6	L.01	.013	L.001	L.001

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	29305P COPPER EXTRBLE. CU MG/L	30305P ZINC EXTRBLE. ZN MG/L	33304L ARSENIC EXTRBLE. AS MG/L	34302L SELENIUM EXTRBLE. SE MG/L	48302P CADMIUM EXTRBLE. CD MG/L	56302P BARIUM EXTRBLE. BA MG/L	80311P MERCURY EXTRBLE HG UG/L	82302P LEAD EXTRBLE PB MG/L
75-08-20	1130	325	.004	.001	.0007	.0003	L.0002	--	L.05	.001
76-04-12	1200	325	L.001	.005	.0010	.0002	L.0002	.33	L.05	.001
76-05-27	1345	325	L.001	L.001	.0003	.0001	L.0002	.14	L.05	.001
76-06-15	1020	325	L.001	L.001	.0004	.0001	L.0002	.12	L.05	L.001
76-08-05	1500	325	L.001	L.001	.0005	.0001	L.0002	.12	L.05	L.001
76-09-12	1510	325	L.001	L.001	.0003	.0002	L.0002	.18	L.05	L.001

FOOTNOTE: L - LESS THAN DETECTION LIMIT G - GREATER THAN MEASUREMENT LIMIT
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION G - PLUS GRAND QUE LA LIMITE MESURE

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0006 LAT. 49D 4M 13S LONG. 114D 27M 55S
SAGE CREEK, 0.5 MILES NORTH OF PROCTOR LAKE ROAD BRIDGE. BRITISH COLUMBIA.
(INTERPRETIVE REPORT STATION 4)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02011L COLOUR APPARENT REL. UNITS	02041L SPECIFIC CONDUCT. USIE/CM	02041S SPECIFIC CONDUCT. USIE/CM	02061L TEMP. WATER DEG.C.	02061S TEMP. WATER DEG.C.	02073L TURBIDITY JTU	06001R CARBON TOTAL ORGANIC C MG/L	06001I CARBON TOTAL ORGANIC C MG/L
75-08-20	1430	325	L5.	134.	150.	22.1	15.0	.2	1.1	1.5
76-04-12	1445	325	5.	117.	120.	22.7	4.0	3.6	2.6	2.9
76-05-29	1015	325	10.	73.	65.	22.8	3.5	8.0	1.7	2.5
76-06-14	1400	325	L5.	82.	85.	19.5	7.0	.4	2.7	2.0
76-08-04	1000	325	5.	107.	115.	19.8	12.0	.2	2.9	2.0
76-09-11	1100	325	L5.	140.	160.	21.9	9.0	.3	L1.0	L1.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060012 CARBON TOTAL ORGANIC C MG/L	060013 CARBON TOTAL ORGANIC C MG/L	060014 CARBON TOTAL ORGANIC C MG/L	060015 CARBON TOTAL ORGANIC C MG/L	060016 CARBON TOTAL ORGANIC C MG/L	06051R CARBON TOTAL INORGANIC C MG/L	060511 CARBON TOTAL INORGANIC C MG/L	060512 CARBON TOTAL INORGANIC C MG/L
75-08-20	1430	325	L1.0	L1.0	1.0	L1.0	L1.0	15.7	15.4	15.6
76-04-12	1445	325	2.3	--	--	--	--	12.6	12.4	12.7
76-05-29	1015	325	2.0	1.7	1.1	1.4	1.4	8.1	8.0	8.0
76-06-14	1400	325	2.3	2.8	2.3	3.7	2.9	8.2	8.3	8.6
76-08-04	1000	325	3.0	3.0	3.5	3.0	3.0	9.1	10.0	9.0
76-09-11	1100	325	L1.0	L1.0	L1.0	L1.0	L1.0	17.0	17.0	17.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060513 CARBON TOTAL INORGANIC C MG/L	060514 CARBON TOTAL INORGANIC C MG/L	060515 CARBON TOTAL INORGANIC C MG/L	060516 CARBON TOTAL INORGANIC C MG/L	06536R PHENOLIC MATERIAL PHENOL MG/L	065361 PHENOLIC MATERIAL PHENOL MG/L	065362 PHENOLIC MATERIAL PHENOL MG/L	065363 PHENOLIC MATERIAL PHENOL MG/L
75-08-20	1430	325	15.7	15.3	15.6	16.5	--	--	--	--
76-04-12	1445	325	--	--	--	--	L.0005	L.0005	L.0005	L.0005
76-05-29	1015	325	8.0	8.0	8.4	8.1	L.0005	L.0005	L.0005	L.0005
76-06-14	1400	325	7.7	8.3	8.0	8.0	--	--	--	--
76-08-04	1000	325	9.0	8.5	9.0	9.0	L.0005	L.0005	L.0005	--
76-09-11	1100	325	17.0	17.0	17.0	17.0	L.0005	L.0005	L.0005	L.0005

84-04-13

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0006
SAGE CREEK. 0.5 MILES NORTH OF PROCTOR LAKE . ROAD BRIDGE. LAT 49D 4M 13S LONG. 114D 27M 55S
(INTERPRETIVE REPORT STATION 4) BRITISH COLUMBIA.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	06552L TANNIN AND LIGNIN LIG.SULPH. MG/L	06903L CARBON PARTICULATE C MG/L	07110R NITROGEN DISSOLVED NO3 & NO2 N MG/L	07110I NITROGEN DISSOLVED NO3 & NO2 N MG/L	07110Z NITROGEN DISSOLVED NO3 & NO2 N MG/L	07110З NITROGEN DISSOLVED NO3 & NO2 N MG/L	07110Ч NITROGEN DISSOLVED NO3 & NO2 N MG/L	07110Ѕ NITROGEN DISSOLVED NO3 & NO2 N MG/L
75-08-20	1430	325	.07	.082	.017	.019	.019	.015	.019	.011
76-04-12	1445	325	--	--	.130	.159	.100	--	--	--
76-05-29	1015	325	--	--	.036	.032	.032	.031	.052	.035
76-06-14	1400	325	--	--	.044	.074	.040	.038	.039	.027
76-08-04	1000	325	--	--	.016	.012	.013	.010	.012	.032
76-09-11	1100	325	--	--	.051	.047	.048	.048	.048	.053

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07110Б NITROGEN DISSOLVED NO3 & NO2 N MG/L	07557R NITROGEN DISSOLVED AMMONIA N MG/L	07557I NITROGEN DISSOLVED AMMONIA N MG/L	07557Z NITROGEN DISSOLVED AMMONIA N MG/L	07557З NITROGEN DISSOLVED AMMONIA N MG/L	07557Ч NITROGEN DISSOLVED AMMONIA N MG/L	07557Ѕ NITROGEN DISSOLVED AMMONIA N MG/L	07557Б NITROGEN DISSOLVED AMMONIA N MG/L
75-08-20	1430	325	.019	.088	.078	.079	.079	.123	.098	.071
76-04-12	1445	325	--	.013	.011	.014	--	--	--	--
76-05-29	1015	325	.033	.012	.017	.009	.009	.015	.011	.010
76-06-14	1400	325	.048	.008	.008	.009	.006	.006	.008	.011
76-08-04	1000	325	.014	.003	.002	.004	.002	.004	.001	.003
76-09-11	1100	325	.061	.004	.001	.001	.002	.004	.005	.008

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07651R NITROGEN DISSOLVED N MG/L	07651I NITROGEN DISSOLVED N MG/L	07651Z NITROGEN DISSOLVED N MG/L	07651З NITROGEN DISSOLVED N MG/L	07651Ч NITROGEN DISSOLVED N MG/L	07651Ѕ NITROGEN DISSOLVED N MG/L	07651Б NITROGEN DISSOLVED N MG/L	07903L NITROGEN PARTICULATE N MG/L
75-08-20	1430	325	.21	.19	.20	.19	.27	.21	.23	.010
76-04-12	1445	325	.22	.22	.22	--	--	--	--	--
76-05-29	1015	325	.11	.11	.11	.10	.15	.11	.11	--
76-06-14	1400	325	.08	.11	.07	.08	.07	.07	.09	--
76-08-04	1000	325	.07	.05	.05	.05	.08	.10	.10	--
76-09-11	1100	325	.09	.08	.07	.08	.07	.14	.11	--

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0006 LAT. 49D 4M 13S LONG. 114D 27M 55S
SAGE CREEK. 0.5 MILES NORTH OF PROCTOR LAKE . ROAD BRIDGE. BRITISH COLUMBIA.
(INTERPRETIVE REPORT STATION 4)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	09106L FLUORIDE DISSOLVED F MG/L	10101L ALKALINITY TOTAL CACO3 MG/L	10151L ALKALINITY PHENOL PHTHALEIN CACO3 MG/L	10301L PH PH UNITS	10301S PH PH UNITS	10401L RESIDUE NONFILTR. MG/L	10451L RESIDUE FILTERABLE MG/L	10501L RESIDUE FIXED NONFILTR. MG/L
75-08-20	1430	325	.04	57.3	0.0	8.3	7.1	--	--	--
76-04-12	1445	325	.05	50.5	0.0	7.7	7.2	23.	90.	18.
76-05-29	1015	325	.04	32.0	0.0	7.7	7.2	25.	56.	24.
76-06-14	1400	325	.07	36.4	0.0	7.7	7.4	0.	80.	L1.
76-08-04	1000	325	.04	45.9	0.0	7.8	--	LO.	74.	LO.
76-09-11	1100	325	.05	58.3	0.0	7.9	8.1	0.	104.	LO.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10551L RESIDUE FIXED FILTERABLE MG/L	10603L HARDNESS TOTAL CACO3 MG/L	11103L SODIUM DISSOLVED NA MG/L	12101L MAGNESIUM DISSOLVED (CALCD.) MG MG/L	14105L SILICA REACTIVE SIO2 MG/L	15102R PHOSPHORUS TOTAL DISSOLVED P MG/L	151021 PHOSPHORUS TOTAL DISSOLVED P MG/L	151022 PHOSPHORUS TOTAL DISSOLVED P MG/L
75-08-20	1430	325	--	66.0	1.4	5.9	5.0	--	--	--
76-04-12	1445	325	18.	57.3	1.2	4.0	5.2	--	--	--
76-05-29	1015	325	56.	35.8	.8	2.2	4.4	--	--	--
76-06-14	1400	325	44.	40.9	.9	2.8	4.5	.005	.004	.009
76-08-04	1000	325	58.	51.8	1.2	3.2	4.7	.005	.008	.004
76-09-11	1100	325	64.	67.0	1.5	5.1	5.5	.004	.005	.005

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	151023 PHOSPHORUS TOTAL DISSOLVED P MG/L	15406R PHOSPHORUS TOTAL P MG/L	154061 PHOSPHORUS TOTAL P MG/L	154062 PHOSPHORUS TOTAL P MG/L	154063 PHOSPHORUS TOTAL P MG/L	154064 PHOSPHORUS TOTAL P MG/L	154065 PHOSPHORUS TOTAL P MG/L	154066 PHOSPHORUS TOTAL P MG/L
75-08-20	1430	325	--	L.002	L.002	L.002	.002	L.002	L.002	.002
76-04-12	1445	325	--	.031	.031	.031	--	--	--	--
76-05-29	1015	325	--	.019	.021	.018	.017	.019	.018	.021
76-06-14	1400	325	.003	.015	.019	.020	.005	.022	.008	.013
76-08-04	1000	325	.004	.014	.007	.004	.005	.047	.010	.009
76-09-11	1100	325	.003	.004	.004	.003	.004	.004	.003	.003

84-04-13

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0006
SAGE CREEK. 0.5 MILES NORTH OF PROCTOR LAKE . ROAD BRIDGE.
(INTERPRETIVE REPORT STATION 4)

LAT. 49D 4M 13S LONG. 114D 27M 55S
BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	16306L SULPHATE DISSOLVED SO4 MG/L	17206L CHLORIDE DISSOLVED CL MG/L	19103L POTASSIUM DISSOLVED K MG/L	20101L CALCIUM DISSOLVED CA MG/L	25304P MANGANESE EXTRBLE. MN MG/L	26305P IRON EXTRBLE. FE MG/L	27302P COBALT EXTRBLE. CO MG/L	28302P NICKEL EXTRBLE. NI MG/L
75-08-20	1430	325	10.3	.7	.4	16.8	L.01	.011	--	--
76-04-12	1445	325	7.1	.4	.5	16.4	.02	.12 04P	L.001	.001
76-05-29	1015	325	3.1	.2	.5	10.8	.01	.05 04P	L.001	L.001
76-06-14	1400	325	4.1	.2	.4	11.8	L.01	.017	L.001	L.001
76-08-04	1000	325	6.9	.4	.5	15.5	L.01	.019	L.001	L.001
76-09-11	1100	325	9.6	.5	.5	18.5	L.01	.008	L.001	L.001

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	29305P COPPER EXTRBLE. CU MG/L	30305P ZINC EXTRBLE. ZN MG/L	33304L ARSENIC EXTRBLE. AS MG/L	34302L SELENIUM EXTRBLE. SE MG/L	48302P CADMIUM EXTRBLE CD MG/L	56302P BARIUM EXTRBLE BA MG/L	80311P MERCURY EXTRBLE. HG UG/L	82302P LEAD EXTRBLE. PB MG/L
75-08-20	1430	325	.002	L.001	.0003	L.0001	L.0002	--	.07	.001
76-04-12	1445	325	L.001	L.001	.0006	L.0001	L.0002	.25	L.05	.001
76-05-29	1015	325	L.001	L.001	.0004	L.0001	L.0002	.14	L.05	L.001
76-06-14	1400	325	.001	L.001	.0003	.0001	L.0002	.14	L.05	L.001
76-08-04	1000	325	.001	L.001	.0006	L.0001	L.0002	.20	L.05	L.001
76-09-11	1100	325	L.001	L.001	.0003	L.0001	L.0002	.25	L.05	L.001

FOOTNOTE: L - LESS THAN DETECTION LIMIT G - GREATER THAN MEASUREMENT LIMIT
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION G - PLUS GRAND QUE LA LIMITE MESURE

84-04-24

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0007 LAT. 49D 2M 21S LONG. 114D 32M 3S
COULDREY CREEK. ROAD BRIDGE 200 METRES ABOVE CONFLUENCE WITH BURNHAM CREEK. BRITISH COLUMBIA
(INTERPRETIVE REPORT STATION 9)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02011L COLOUR APPARENT REL. UNITS	02041L SPECIFIC CONDUCT. USIE/CM	02041S SPECIFIC CONDUCT. USIE/CM	02061L TEMP. WATER DEG.C.	02061S TEMP. WATER DEG.C.	02073L TURBIDITY JTU	06001R CARBON TOTAL ORGANIC C MG/L	060011 CARBON TOTAL ORGANIC C MG/L
75-12-18	1000	325	--	--	--	--	--	--	.6	.6
76-05-28	1445	325	7.	115.	125.	22.6	7.0	4.2	1.4	1.7
76-06-15	1310	325	L5.	121.	130.	20.3	7.0	.4	2.4	2.6
76-08-05	1640	325	L5.	152.	180.	19.7	10.0	.5	4.0	4.6
76-09-12	1250	325	5.	164.	200.	22.0	8.5	.2	L1.0	L1.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060012 CARBON TOTAL ORGANIC C MG/L	060013 CARBON TOTAL ORGANIC C MG/L	060014 CARBON TOTAL ORGANIC C MG/L	060015 CARBON TOTAL ORGANIC C MG/L	060016 CARBON TOTAL ORGANIC C MG/L	06051R CARBON TOTAL INORGANIC C MG/L	060511 CARBON TOTAL INORGANIC C MG/L	060512 CARBON TOTAL INORGANIC C MG/L
75-12-18	1000	325	.9	.9	.3	.1	.9	18.0	18.0	17.3
76-05-28	1445	325	1.1	L1.0	2.3	L1.0	L1.0	14.3	15.0	14.0
76-06-15	1310	325	2.6	2.3	2.6	2.0	2.0	14.3	15.0	14.0
76-08-05	1640	325	4.2	3.1	5.4	2.8	3.9	14.3	14.0	14.0
76-09-12	1250	325	L1.0	L1.0	L1.0	L1.0	L1.0	21.3	22.0	21.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060513 CARBON TOTAL INORGANIC C MG/L	060514 CARBON TOTAL INORGANIC C MG/L	060515 CARBON TOTAL INORGANIC C MG/L	060516 CARBON TOTAL INORGANIC C MG/L	06536R PHENOLIC MATERIAL PHENOL MG/L	065361 PHENOLIC MATERIAL PHENOL MG/L	065362 PHENOLIC MATERIAL PHENOL MG/L	065363 PHENOLIC MATERIAL PHENOL MG/L
75-12-18	1000	325	17.5	18.7	18.5	17.7	--	--	--	--
76-05-28	1445	325	14.0	14.0	14.0	15.0	L.0005	L.0005	L.0005	L.0005
76-06-15	1310	325	14.0	14.0	14.0	15.0	L.0005	L.0005	L.0005	--
76-08-05	1640	325	15.0	13.0	16.0	14.0	--	--	--	--
76-09-12	1250	325	21.0	21.0	22.0	21.0	--	--	--	--

84-04-24

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0007
COULDREY CREEK. ROAD BRIDGE 200 METRES ABOVE CONFLUENCE WITH BURNHAM CREEK. LAT. 49D 2M 21S LONG 114D 32M 3S
(INTERPRETIVE REPORT STATION 9) BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07110R NITROGEN DISSOLVED NO3 & NO2 N MG/L	071101 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071102 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071103 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071104 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071105 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071106 NITROGEN DISSOLVED NO3 & NO2 N MG/L	07557R NITROGEN DISSOLVED AMMONIA N MG/L
75-12-18	1000	325	.035	.040	.033	.033	.032	.036	.034	.008
76-05-28	1445	325	.006	.015	.005	.005	.004	.005	.004	.013
76-06-15	1310	325	.008	.008	.002	.017	.002	.009	.009	.008
76-08-05	1640	325	.008	.009	.013	.015	.004	L .002	.003	.006
76-09-12	1250	325	.016	.018	.012	.020	.020	.012	--	.002

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	075571 NITROGEN DISSOLVED AMMONIA N MG/L	075572 NITROGEN DISSOLVED AMMONIA N MG/L	075573 NITROGEN DISSOLVED AMMONIA N MG/L	075574 NITROGEN DISSOLVED AMMONIA N MG/L	075575 NITROGEN DISSOLVED AMMONIA N MG/L	075576 NITROGEN DISSOLVED AMMONIA N MG/L	07651R NITROGEN DISSOLVED N MG/L	076511 NITROGEN DISSOLVED N MG/L
75-12-18	1000	325	.003	.009	.005	.009	.010	.013	.08	.09
76-05-28	1445	325	.014	.013	.011	.013	.011	.014	.05	.07
76-06-15	1310	325	.004	.003	.005	.003	.016	.016	.05	.05
76-08-05	1640	325	.005	.007	.010	.004	003	.005	.04	.05
76-09-12	1250	325	.004	.002	.002	.001	.002	--	.03	.03

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	076512 NITROGEN DISSOLVED N MG/L	076513 NITROGEN DISSOLVED N MG/L	076514 NITROGEN DISSOLVED N MG/L	076515 NITROGEN DISSOLVED N MG/L	076516 NITROGEN DISSOLVED N MG/L	09106L FLUORIDE DISSOLVED F MG/L	091061 FLUORIDE DISSOLVED F MG/L	091062 FLUORIDE DISSOLVED F MG/L
75-12-18	1000	325	.08	.07	.07	.09	.07	.05 06R	.05	.05
76-05-28	1445	325	.05	.05	.05	.05	05	.04	--	--
76-06-15	1310	325	.04	.06	.04	.06	.07	.07	--	--
76-08-05	1640	325	.05	.05	.03	.03	.03	.06	--	--
76-09-12	1250	325	.03	.03	.03	.03	--	.07	--	--

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0007 LAT. 49D 2M 21S LONG. 114D 32M 35S
COULDREY CREEK. ROAD BRIDGE 200 METRES ABOVE CONFLUENCE WITH BURNHAM CREEK. BRITISH COLUMBIA
(INTERPRETIVE REPORT STATION 9)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	091063 FLUORIDE DISSOLVED F MG/L	091064 FLUORIDE DISSOLVED F MG/L	091065 FLUORIDE DISSOLVED F MG/L	091066 FLUORIDE DISSOLVED F MG/L	10101L ALKALINITY TOTAL CACO3 MG/L	10151L ALKALINITY PHENOL PHTHALEIN CACO3 MG/L	10301L PH PH UNITS	10301S PH PH UNITS
75-12-18	1000	325	.05	.05	.05	.05	--	--	--	--
76-05-28	1445	325	--	--	--	--	54.9	0.0	7.9	7.8
76-06-15	1310	325	--	--	--	--	59.0	0.0	8.0	7.6
76-08-05	1640	325	--	--	--	--	75.0	0.0	8.1	--
76-09-12	1250	325	--	--	--	--	82.2	0.0	7.9	8.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10401L RESIDUE NONFILTR. MG/L	10451L RESIDUE FILTERABLE MG/L	10501L RESIDUE FIXED NONFILTR. MG/L	10551L RESIDUE FIXED FILTERABLE MG/L	10603L HARDNESS TOTAL CACO3 MG/L	11103L SODIUM DISSOLVED NA MG/L	12101L MAGNESIUM DISSOLVED (CALCD.) MG MG/L	14105L SILICA REACTIVE SIO2 MG/L
75-12-18	1000	325	--	--	--	--	--	--	--	5.8 05R
76-05-28	1445	325	21.	88.	19.	76.	57.6	.6	3.7	5.3
76-06-15	1310	325	2.	100.	L1.	40.	61.4	.8	4.0	5.3
76-08-05	1640	325	1.	140.	1.	102.	77.7	.8	4.7	5.5
76-09-12	1250	325	1.	92.	0.	76	86.2	.8	6.7	5.8

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	141051 SILICA REACTIVE SIO2 MG/L	141052 SILICA REACTIVE SIO2 MG/L	141053 SILICA REACTIVE SIO2 MG/L	141054 SILICA REACTIVE SIO2 MG/L	141055 SILICA REACTIVE SIO2 MG/L	141056 SILICA REACTIVE SIO2 MG/L	15102R PHOSPHORUS TOTAL DISSOLVED P MG/L	15102I PHOSPHORUS TOTAL DISSOLVED P MG/L
75-12-18	1000	325	5.8	5.8	5.9	5.9	5.8	5.8	--	--
76-06-15	1310	325	--	--	--	--	--	--	.008	.011
76-08-05	1640	325	--	--	--	--	--	--	.009	.010
76-09-12	1250	325	--	--	--	--	--	--	.007	.009

84-04-24

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0007
COULDREY CREEK. ROAD BRIDGE 200 METRES ABOVE CONFLUENCE WITH BURNHAM CREEK. LAT. 49D 2M 21S LONG. 114D 32M 35S
(INTERPRETIVE REPORT STATION 9) BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	151022 PHOSPHORUS TOTAL DISSOLVED P MG/L	151023 PHOSPHORUS TOTAL DISSOLVED P MG/L	15406R PHOSPHORUS TOTAL P MG/L	15406I PHOSPHORUS TOTAL P MG/L	15406J PHOSPHORUS TOTAL P MG/L	15406K PHOSPHORUS TOTAL P MG/L	15406L PHOSPHORUS TOTAL P MG/L	15406M PHOSPHORUS TOTAL P MG/L
75-12-18	1000	325	--	--	.011	.014	.010	.007	.014	.008
76-05-28	1445	325	--	--	.036	.045	.039	.027	.047	.024
76-06-15	1310	325	.006	.006	.013	.012	.013	.014	.013	.014
76-08-05	1640	325	.009	.008	.009	.006	.007	.008	.009	.008
76-09-12	1250	325	.006	.007	.007	.007	006	.009	.006	.007

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	154066 PHOSPHORUS TOTAL P MG/L	16306L SULPHATE DISSOLVED SO4 MG/L	17206L CHLORIDE DISSOLVED CL MG/L	19103L POTASSIUM DISSOLVED K MG/L	20101L CALCIUM DISSOLVED CA MG/L	25304P MANGANESE EXTRBLE. MN MG/L	26305P IRON EXTRBLE. FE MG/L	27302P COBALT EXTRBLE. CO MG/L
75-12-18	1000	325	.014	--	--	--	--	L.01	.003	L.001
76-02-05	1000	325	--	--	--	--	--	L.01	.003	L.001
76-05-28	1445	325	.032	2.3	.2	.3	16.9	L.01	.18 04P	L.001
76-06-15	1310	325	.010	2.7	L.2	.3	18.0	L.01	.022	.001
76-08-05	1640	325	.013	3.4	.2	.3	23.3	L.01	.016	L.001
76-09-12	1250	325	.008	4.3	.2	.3	23.5	L.01	.006	L.001

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	28302P NICKEL EXTRBLE. NI MG/L	29305P COPPER EXTRBLE. CU MG/L	30305P ZINC EXTRBLE. ZN MG/L	33304L ARSENIC EXTRBLE. AS MG/L	34302L SELENIUM EXTRBLE. SE MG/L	42302P MOLYBDENUM EXTRBLE. MO MG/L	48302P CADMIUM EXTRBLE CD MG/L	56302P BARIUM EXTRBLE. BA MG/L
75-12-18	1000	325	L.001	L.001	L.001	--	--	--	.0100	.24
76-02-05	1000	325	L.001	L.001	.001	--	--	.0006	L.0002	54
76-05-28	1445	325	L.001	L.001	L.001	.0003	L.0001	--	L.0002	.17
76-06-15	1310	325	L.001	L.001	L.001	.0003	L.0001	--	L.0002	.16
76-08-05	1640	325	L.001	.001	L.001	.0005	.0001	--	L.0002	.17
76-09-12	1250	325	L.001	L.001	L.001	.0003	.0001	--	L.0002	.21

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0007 LAT. 49D 2M 21S LONG. 114D 32M 3S
COULDREY CREEK. ROAD BRIDGE 200 METRES ABOVE CONFLUENCE WITH BURNHAM CREEK. BRITISH COLUMBIA
(INTERPRETIVE REPORT STATION 9)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	80311P MERCURY EXTRBLE. HG UG/L	82302P LEAD EXTRBLE. PB MG/L
75-12-18	1000	325	--	L.001
76-02-05	1000	325	L.05	L.001
76-05-28	1445	325	L.05	.001
76-06-15	1310	325	L.05	.002
76-08-05	1640	325	L.05	L.001
76-09-12	1250	325	L.05	L.001

FOOTNOTE: L - LESS THAN DETECTION LIMIT G - GREATER THAN MEASUREMENT LIMIT
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION G - PLUS GRAND QUE LA LIMITE MESURE

84-04-06

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0008
HOWELL CREEK. ROAD BRIDGE 750 METRES ABOVE CONFLUENCE WITH FLATHEAD RIVER. LAT. 49D 5M 8S LONG. 114D 31M 32S
(INTERPRETIVE REPORT STATION 2) BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02011L COLOUR APPARENT REL. UNITS	02041L SPECIFIC CONDUCT. USIE/CM	02041S SPECIFIC CONDUCT. USIE/CM	02061L TEMP. WATER DEG.C.	02061S TEMP. WATER DEG.C.	02073L TURBIDITY JTU	06001R CARBON TOTAL ORGANIC C MG/L	060011 CARBON TOTAL ORGANIC C MG/L
75-12-18	1400	325	L5.	259.	--	23.0	.5	1.2	1.6	2.1
76-02-05	1445	325	L5.	290.	--	21.1	--	.5	5.1	4.8
76-04-12	1130	325	10.	215.	280.	22.5	2.0	3.8	1.4	1.6
76-05-27	1530	325	7.	199.	240.	22.7	9.5	5.6	7.0	6.7
76-05-28	1145	325	15.	183.	200.	22.8	6.0	20.0	7.0	4.9
76-05-29	1345	325	7.	193.	180.	22.8	6.0	6.0	3.1	4.4
76-06-14	1045	325	L5.	208.	230.	19.8	5.0	.6	2.6	3.1
76-06-16	1230	325	L5.	195.	185.	17.6	6.8	1.1	2.2	4.1
76-08-04	1430	325	L5.	241.	240.	19.5	11.5	.3	2.5	L1.0
76-08-05	1720	325	5.	240.	240.	19.8	11.0	.4	5.0	3.4
76-09-11	1530	325	5.	261.	310.	21.8	9.0	.3	L1.0	L1.0
76-09-12	1425	325	5.	262.	300.	22.1	9.0	.3	1.1	L1.0
76-09-13	1235	325	5.	264.	310.	22.2	9.0	.3	2.1	3.1
82-07-28	1540	325	L5.	235.	--	21.5	--	.8	--	--
	1541	325	L5.	234.	--	21.4	--	.7	L1.8	L1.8

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060012 CARBON TOTAL ORGANIC C MG/L	060013 CARBON TOTAL ORGANIC C MG/L	060014 CARBON TOTAL ORGANIC C MG/L	060015 CARBON TOTAL ORGANIC C MG/L	060016 CARBON TOTAL ORGANIC C MG/L	06051R CARBON TOTAL INORGANIC C MG/L	060511 CARBON TOTAL INORGANIC C MG/L	060512 CARBON TOTAL INORGANIC C MG/L
75-12-18	1400	325	.4	1.9	.7	2.3	2.1	31.2	30.6	32.2
76-02-05	1445	325	5.1	5.3	--	--	--	31.2	32.2	31.9
76-04-12	1130	325	1.3	1.3	1.3	--	--	27.5	27.4	27.7
76-05-27	1530	325	9.5	6.4	7.5	6.7	5.4	22.3	23.0	22.0
76-05-28	1145	325	8.3	8.1	6.9	6.6	7.2	21.5	24.0	20.0
76-05-29	1345	325	3.6	L1.0	3.2	2.8	3.4	24.7	24.0	24.0
76-06-14	1045	325	2.8	3.6	1.1	2.8	1.9	23.8	24.0	24.0
76-06-16	1230	325	L1.0	1.7	1.7	2.0	2.9	23.3	22.0	24.0
76-08-04	1430	325	L1.0	3.5	L1.0	4.4	3.9	28.8	29.0	29.0
76-08-05	1720	325	9.5	3.1	5.5	4.4	4.2	26.7	28.0	22.0
76-09-11	1530	325	L1.0	L1.0	L1.0	L1.0	L1.0	35.0	36.0	35.0
76-09-12	1425	325	L1.0	L1.0	1.4	L1.0	L1.0	34.0	34.0	34.0
76-09-13	1235	325	2.6	2.3	1.4	1.9	1.4	33.5	33.0	33.0
82-07-28	1541	325	L1.8	L1.8	--	--	--	33.0	33.0	33.0

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0008 LAT. 49D 5M 8S LONG. 114D 31M 32S
HOWELL CREEK. ROAD BRIDGE 750 METRES ABOVE CONFLUENCE WITH FLATHEAD RIVER. BRITISH COLUMBIA.
(INTERPRETIVE REPORT STATION 2)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060513 CARBON TOTAL INORGANIC C MG/L	060514 CARBON TOTAL INORGANIC C MG/L	060515 CARBON TOTAL INORGANIC C MG/L	060516 CARBON TOTAL INORGANIC C MG/L	06536R PHENOLIC MATERIAL PHENOL MG/L	065361 PHENOLIC MATERIAL PHENOL MG/L	065362 PHENOLIC MATERIAL PHENOL MG/L	065363 PHENOLIC MATERIAL PHENOL MG/L
75-12-18	1400	325	30.8	31.8	30.8	31.0	--	--	--	--
76-02-05	1445	325	29.4	--	--	--	--	--	--	--
76-04-12	1130	325	27.1	27.7	--	--	L.0005	L.0005	L.0005	L.0005
76-05-27	1530	325	22.0	21.0	23.0	23.0	L.0005	L.0005	L.0005	L.0005
76-05-28	1145	325	21.0	21.0	22.0	21.0	L.0005	L.0005	L.0005	L.0005
76-05-29	1345	325	26.0	24.0	25.0	25.0	--	--	--	--
76-06-14	1045	325	23.0	24.0	24.0	24.0	L.0005	L.0005	L.0005	L.0005
76-06-16	1230	325	22.0	24.0	24.0	24.0	--	--	--	--
76-08-04	1430	325	29.0	31.0	27.0	28.0	L.0005	L.0005	L.0005	--
76-08-05	1720	325	29.0	26.0	28.0	27.0	--	--	--	--
76-09-11	1530	325	35.0	35.0	35.0	34.0	L.0005	L.0005	L.0005	L.0005
76-09-12	1425	325	34.0	34.0	34.0	34.0	--	--	--	--
76-09-13	1235	325	33.0	34.0	34.0	34.0	--	--	--	--
82-07-28	1541	325	33.0	--	--	--	--	--	--	--

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	06903L CARBON PARTICULATE C MG/L	069031 CARBON PARTICULATE C MG/L	069032 CARBON PARTICULATE C MG/L	069033 CARBON PARTICULATE C MG/L	07110R NITROGEN DISSOLVED NO3 & NO2 N MG/L	071101 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071102 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071103 NITROGEN DISSOLVED NO3 & NO2 N MG/L
75-12-18	1400	325	--	--	--	--	.062	.060	.057	.062
76-02-05	1445	325	--	--	--	--	.027	.022	.023	.046
76-04-12	1130	325	--	--	--	--	.082	.081	.081	.081
76-05-27	1530	325	--	--	--	--	.016	.015	.015	.016
76-05-28	1145	325	--	--	--	--	.023	.022	.022	.021
76-05-29	1345	325	--	--	--	--	.019	.020	.021	.016
76-06-14	1045	325	--	--	--	--	.010	.003	.005	.029
76-06-16	1230	325	--	--	--	--	.014	.044	.014	.013
76-08-04	1430	325	--	--	--	--	.003	L.002	L.002	L.002
76-08-05	1720	325	--	--	--	--	.037	.002	.135	.050
76-09-11	1530	325	--	--	--	--	.015	.034	.008	.020
76-09-12	1425	325	--	--	--	--	.025	.006	.030	.050
76-09-13	1235	325	--	--	--	--	.017	.037	.030	.006
82-07-28	1541	325	.184 03R	.182	.171	.200	L.002	L.002	L.002	L.002

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DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0008
HOWELL CREEK. ROAD BRIDGE 750 METRES ABOVE CONFLUENCE WITH FLATHEAD RIVER. LAT. 49D 5M 8S LONG. 114D 31M 32S
(INTERPRETIVE REPORT STATION 2) BRITISH COLUMBIA.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	071104 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071105 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071106 NITROGEN DISSOLVED NO3 & NO2 N MG/L	07557R NITROGEN DISSOLVED AMMONIA N MG/L	075571 NITROGEN DISSOLVED AMMONIA N MG/L	075572 NITROGEN DISSOLVED AMMONIA N MG/L	075573 NITROGEN DISSOLVED AMMONIA N MG/L	075574 NITROGEN DISSOLVED AMMONIA N MG/L
75-12-18	1400	325	.057	.054	.084	.010	.009	.008	.010	.010
76-02-05	1445	325	.019	.030	.024	.009	.008	.009	.009	.009
76-04-12	1130	325	.082	.082	.082	.010	.007	.007	.010	.011
76-05-27	1530	325	.019	.015	.015	.012	.010	.012	.013	.015
76-05-28	1145	325	.030	.022	.021	.010	.008	.008	.010	.012
76-05-29	1345	325	.017	.023	.016	.012	.012	.011	.012	.012
76-06-14	1045	325	.007	.007	--	.008	.007	.007	.009	.009
76-06-16	1230	325	.002	.003	.005	.004	.008	.003	.003	.004
76-08-04	1430	325	L.002	.007	L.002	.009	.007	.004	.003	.004
76-08-05	1720	325	.030	.003	.002	.010	.004	.029	.008	.007
76-09-11	1530	325	.006	.007	.015	.008	.014	.003	.006	.006
76-09-12	1425	325	.009	.031	.023	.006	.003	.009	.004	.004
76-09-13	1235	325	.006	.012	.012	.006	.007	.007	.005	.007
82-07-28	1541	325	--	--	--	L.002	L.002	L.002	L.002	--

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	075575 NITROGEN DISSOLVED AMMONIA N MG/L	075576 NITROGEN DISSOLVED AMMONIA N MG/L	07651R NITROGEN DISSOLVED N MG/L	076511 NITROGEN DISSOLVED N MG/L	076512 NITROGEN DISSOLVED N MG/L	076513 NITROGEN DISSOLVED N MG/L	076514 NITROGEN DISSOLVED N MG/L	076515 NITROGEN DISSOLVED N MG/L
75-12-18	1400	325	.010	.010	.12	.10	.12	.11	.10	.11
76-02-05	1445	325	.011	.008	.07	.07	.06	.07	.06	.08
76-04-12	1130	325	.011	.011	.15	.15	.15	--	--	--
76-05-27	1530	325	.011	.010	.08	.09	.07	.08	.08	.08
76-05-28	1145	325	.010	.010	.11	.10	.11	.11	.13	.11
76-05-29	1345	325	.014	.012	.10	.11	.10	.10	.09	.15
76-06-14	1045	325	.009	--	.06	.06	.05	.08	.05	.05
76-06-16	1230	325	.003	.003	.07	.10	.06	.07	.06	.06
76-08-04	1430	325	.032	.005	.06	.05	.08	.06	.05	.09
76-08-05	1720	325	.008	.005	.09	.04	.24	.10	.07	.05
76-09-11	1530	325	.008	.008	.06	.10	.04	.08	.05	.04
76-09-12	1425	325	.006	.008	.07	.05	.08	.09	.04	.08
76-09-13	1235	325	.003	.004	.05	.08	.10	.04	.04	.04

NAQUADAT
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STATION - 00BC08NP0008 LAT. 49D 5M 8S LONG. 114D 31M 32S
HOWELL CREEK. ROAD BRIDGE 750 METRES ABOVE CONFLUENCE WITH FLATHEAD RIVER. BRITISH COLUMBIA.
(INTERPRETIVE REPORT STATION 2)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	076516 NITROGEN DISSOLVED N MG/L	07655R NITROGEN TOTAL DISSOLVED N MG/L	076551 NITROGEN TOTAL DISSOLVED N MG/L	076552 NITROGEN TOTAL DISSOLVED N MG/L	076553 NITROGEN TOTAL DISSOLVED N MG/L	07903L NITROGEN PARTICULATE N MG/L	079031 NITROGEN PARTICULATE N MG/L	079032 NITROGEN PARTICULATE N MG/L
75-12-18	1400	325	.16	--	--	--	--	--	--	--
76-02-05	1445	325	.06	--	--	--	--	--	--	--
76-05-27	1530	325	.08	--	--	--	--	--	--	--
76-05-28	1145	325	.11	--	--	--	--	--	--	--
76-05-29	1345	325	.09	--	--	--	--	--	--	--
76-06-16	1230	325	.06	--	--	--	--	--	--	--
76-08-04	1430	325	.05	--	--	--	--	--	--	--
76-08-05	1720	325	.04	--	--	--	--	--	--	--
76-09-11	1530	325	.06	--	--	--	--	--	--	--
76-09-12	1425	325	.06	--	--	--	--	--	--	--
76-09-13	1235	325	.04	--	--	--	--	--	--	--
82-07-28	1541	325	--	.035	.036	.035	.034	.012 03R	.012	.010

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	079033 NITROGEN PARTICULATE N MG/L	09106L FLUORIDE DISSOLVED F MG/L	091061 FLUORIDE DISSOLVED F MG/L	091062 FLUORIDE DISSOLVED F MG/L	091063 FLUORIDE DISSOLVED F MG/L	091064 FLUORIDE DISSOLVED F MG/L	091065 FLUORIDE DISSOLVED F MG/L	091066 FLUORIDE DISSOLVED F MG/L
75-12-18	1400	325	--	.11 06R	.11	.11	.12	.12	.12	.12
76-04-12	1130	325	--	.12	--	--	--	--	--	--
76-05-27	1530	325	--	.09	--	--	--	--	--	--
76-05-28	1145	325	--	.08	--	--	--	--	--	--
76-05-29	1345	325	--	.08	--	--	--	--	--	--
76-06-14	1045	325	--	.11	--	--	--	--	--	--
76-06-16	1230	325	--	.09	--	--	--	--	--	--
76-08-04	1430	325	--	.11	--	--	--	--	--	--
76-08-05	1720	325	--	.10	--	--	--	--	--	--
76-09-11	1530	325	--	.10	--	--	--	--	--	--
76-09-12	1425	325	--	.11	--	--	--	--	--	--
76-09-13	1235	325	--	.11	--	--	--	--	--	--
82-07-28	1540	325	--	L.05	--	--	--	--	--	--
	1541	325	.015	.06	--	--	--	--	--	--

84-04-06

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0008
HOWELL CREEK. ROAD BRIDGE 750 METRES ABOVE CONFLUENCE WITH FLATHEAD RIVER. LAT. 49D 5M 8S LONG. 114D 31M 32S
(INTERPRETIVE REPORT STATION 2) BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10101L ALKALINITY TOTAL CACO3 MG/L	10151L ALKALINITY PHENOL PHTHALEIN CACO3 MG/L	10301L PH PH UNITS	10301S PH PH UNITS	10401L RESIDUE NONFILTR. MG/L	10451L RESIDUE FILTERABLE MG/L	10501L RESIDUE FIXED NONFILTR MG/L	10551L RESIDUE FIXED FILTERABLE MG/L
75-12-18	1400	325	134.0	0.0	8.3	7.1	1.	204.	0.	146.
76-02-05	1445	325	147.0	0.0	8.3	--	2.	180.	1.	152.
76-04-12	1130	325	110.0	0.0	8.1	8.1	28.	122.	20.	82.
76-05-27	1530	325	100.0	0.0	8.2	8.4	21.	124.	19.	106.
76-05-28	1145	325	92.5	0.0	8.1	8.2	37.	142.	35.	80.
76-05-29	1345	325	99.0	0.0	8.2	8.3	18.	118.	16.	94.
76-06-14	1045	325	104.0	0.0	8.2	8.4	1.	148.	0.	88.
76-06-16	1230	325	103.0	0.0	8.2	8.3	2.	136.	L1.	100.
76-08-04	1430	325	128.0	1.5	8.4	--	1.	172.	LO.	104.
76-08-05	1720	325	127.0	0.0	8.3	--	2.	188.	L1.	92.
76-09-11	1530	325	136.0	0.0	8.3	8.4	2.	223.	LO.	112.
76-09-12	1425	325	135.0	0.0	8.1	8.3	2.	176.	1.	114.
76-09-13	1235	325	136.0	0.0	8.1	8.2	2.	174.	1.	122.
82-07-28	1540	325	128.7	0.0	8.2	--	--	--	--	--
	1541	325	129.0	0.0	8.2	--	--	--	--	--

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10603L HARDNESS TOTAL CACO3 MG/L	11103L SODIUM DISSOLVED NA MG/L	12101L MAGNESIUM DISSOLVED (CALCD.) MG MG/L	14105L SILICA REACTIVE SIO2 MG/L	141051 SILICA REACTIVE SIO2 MG/L	141052 SILICA REACTIVE SIO2 MG/L	141053 SILICA REACTIVE SIO2 MG/L	141054 SILICA REACTIVE SIO2 MG/L
75-12-18	1400	325	142.0	.7	8.7	5.0 05R	5.0	5.1	5.0	5.1
76-02-05	1445	325	160.0	.8	12.2	5.4 05R	5.4	5.4	--	--
76-04-12	1130	325	116.0	.8	6.5	4.9	--	--	--	--
76-05-27	1530	325	105.0	.6	6.6	4.7	--	--	--	--
76-05-28	1145	325	98.1	.6	6.3	4.5	--	--	--	--
76-05-29	1345	325	103.0	.8	5.9	4.6	--	--	--	--
76-06-14	1045	325	110.0	.7	6.7	4.5	--	--	--	--
76-06-16	1230	325	105.0	.7	6.7	4.4	--	--	--	--
76-08-04	1430	325	132.0	.7	7.0	4.8	--	--	--	--
76-08-05	1720	325	131.0	.7	7.0	4.9	--	--	--	--
76-09-11	1530	325	140.0	.8	9.4	5.1	--	--	--	--
76-09-12	1425	325	140.0	.8	8.7	5.1	--	--	--	--
76-09-13	1235	325	141.0	.8	9.0	5.1	--	--	--	--
82-07-28	1540	325	136.2	.6	8.7	4.6	--	--	--	--
	1541	325	136.2	.6	8.9	4.6	--	--	--	--

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0008 LAT. 49D 5M 8S LONG. 114D 31M 32S
HOWELL CREEK, ROAD BRIDGE 750 METRES ABOVE CONFLUENCE WITH FLATHEAD RIVER, BRITISH COLUMBIA.
(INTERPRETIVE REPORT STATION 2)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	141055 SILICA REACTIVE SIO2 MG/L	141056 SILICA REACTIVE SIO2 MG/L	15102R PHOSPHORUS TOTAL DISSOLVED P MG/L	151021 PHOSPHORUS TOTAL DISSOLVED P MG/L	151022 PHOSPHORUS TOTAL DISSOLVED P MG/L	151023 PHOSPHORUS TOTAL DISSOLVED P MG/L	15406R PHOSPHORUS TOTAL P MG/L	154061 PHOSPHORUS TOTAL P MG/L
75-12-18	1400	325	5.0	5.0	--	--	--	--	.013	.012
76-02-05	1445	325	--	--	--	--	--	--	.011	.008
76-04-12	1130	325	--	--	--	--	--	--	.062	.062
76-05-27	1530	325	--	--	.018	.023	.015	.015	.030	.029
76-05-28	1145	325	--	--	--	--	--	--	.054	.048
76-05-29	1345	325	--	--	--	--	--	--	.029	.030
76-06-14	1045	325	--	--	.011	.010	.011	.013	.017	.017
76-06-16	1230	325	--	--	.015	.013	.016	.016	.013	.013
76-08-04	1430	325	--	--	.011	.009	.015	.009	.011	.010
76-08-05	1720	325	--	--	--	--	--	--	.012	.013
76-09-11	1530	325	--	--	.010	.011	.009	.011	.009	.010
76-09-12	1425	325	--	--	.009	.008	.009	.009	.009	.008
76-09-13	1235	325	--	--	--	--	--	--	.010	.010
82-07-28	1541	325	--	--	.004	.005	.004	.004	.010	.010

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	154062 PHOSPHORUS TOTAL P MG/L	154063 PHOSPHORUS TOTAL P MG/L	154064 PHOSPHORUS TOTAL P MG/L	154065 PHOSPHORUS TOTAL P MG/L	154066 PHOSPHORUS TOTAL P MG/L	16306L SULPHATE DISSOLVED SO4 MG/L	17206L CHLORIDE DISSOLVED CL MG/L	19103L POTASSIUM DISSOLVED K MG/L
75-12-18	1400	325	.014	.013	.012	.011	.013	8.9	.6	.2
76-02-05	1445	325	.009	.010	.010	.024	.007	8.1	.3	.3
76-04-12	1130	325	.058	.058	.068	.061	.066	5.3	.4	.4
76-05-27	1530	325	.032	.025	.030	.031	.030	4.6	.4	.4
76-05-28	1145	325	.048	.051	.054	.071	.054	3.7	.3	.4
76-05-29	1345	325	.030	.029	.027	.028	.031	4.0	.3	.4
76-06-14	1045	325	.018	.016	.016	.018	.017	4.5	.2	.4
76-06-16	1230	325	.014	.014	.010	.012	.014	4.3	.2	.4
76-08-04	1430	325	.011	.010	.010	.011	.011	5.0	.3	.5
76-08-05	1720	325	.011	.011	.012	.012	.011	5.6	.3	.4
76-09-11	1530	325	.009	.009	.009	.008	.009	5.9	.4	.4
76-09-12	1425	325	.010	.010	.010	.008	.010	5.8	.3	.4
76-09-13	1235	325	.010	.010	.010	.010	.010	5.7	.3	.4
82-07-28	1540	325	--	--	--	--	--	4.0	.2	.2
	1541	325	.009	.012	--	--	--	4.0	.2	.2

84-04-06

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0008 LAT 49D 5M 8S LONG 114D 31M 32S
HOWELL CREEK, ROAD BRIDGE 750 METRES ABOVE CONFLUENCE WITH FLATHEAD RIVER, BRITISH COLUMBIA.
(INTERPRETIVE REPORT STATION 2)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	20101L CALCIUM DISSOLVED CA MG/L	25304P MANGANESE EXTRBLE. MN MG/L	253041 MANGANESE EXTRBLE. MN MG/L	253042 MANGANESE EXTRBLE. MN MG/L	26305P IRON EXTRBLE. FE MG/L	263051 IRON EXTRBLE. FE MG/L	263052 IRON EXTRBLE. FE MG/L	27302P COBALT EXTRBLE. CO MG/L
75-12-18	1400	325	42.6	L.01	--	--	.028	--	--	L.001
76-02-05	1445	325	43.9	L.01	--	--	.009	--	--	L.001
76-04-12	1130	325	35.8	.02	--	--	.20 04P	--	--	L.001
76-05-27	1530	325	31.2	.01	--	--	.07 04P	--	--	L.001
76-05-28	1145	325	28.9	.02	--	--	.18 04P	--	--	L.001
76-05-29	1345	325	31.6	L.01	--	--	.06 04P	--	--	L.001
76-06-14	1045	325	33.1	L.01	--	--	.06 04P	--	--	L.001
76-06-16	1230	325	31.0	--	--	--	--	--	--	--
76-08-04	1430	325	41.4	L.01	--	--	.024	--	--	L.001
76-08-05	1720	325	41.0	--	--	--	--	--	--	--
76-09-11	1530	325	40.6	L.01	--	--	.020	--	--	L.001
76-09-12	1425	325	41.7	L.01	--	--	.014	--	--	L.001
76-09-13	1235	325	41.6	L.01	--	--	.017	--	--	L.001
82-07-28	1540	325	40.2	--	--	--	--	--	--	--
	1541	325	39.9	L.01 04R	L.01	L.01	.042 05R	.033	.050	--

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	28302P NICKEL EXTRBLE. NI MG/L	29305P COPPER EXTRBLE. CU MG/L	293051 COPPER EXTRBLE. CU MG/L	293052 COPPER EXTRBLE. CU MG/L	30305P ZINC EXTRBLE. ZN MG/L	303051 ZINC EXTRBLE. ZN MG/L	303052 ZINC EXTRBLE. ZN MG/L	33304L ARSENIC EXTRBLE. AS MG/L
75-12-18	1400	325	L.001	L.001	--	--	.001	--	--	.0004
76-02-05	1445	325	L.001	L.001	--	--	L.001	--	--	--
76-04-12	1130	325	L.001	.001	--	--	.001	--	--	.0010
76-05-27	1530	325	L.001	L.001	--	--	L.001	--	--	.0003
76-05-28	1145	325	L.001	L.001	--	--	.001	--	--	.0004
76-05-29	1345	325	L.001	L.001	--	--	L.001	--	--	.0003
76-06-14	1045	325	L.001	L.001	--	--	L.001	--	--	.0005
76-06-16	1230	325	--	--	--	--	--	--	--	.0004
76-08-04	1430	325	.001	.001	--	--	L.001	--	--	.0004
76-08-05	1720	325	--	--	--	--	--	--	--	.0005
76-09-11	1530	325	L.001	L.001	--	--	L.001	--	--	.0005
76-09-12	1425	325	L.001	L.001	--	--	L.001	--	--	.0005
76-09-13	1235	325	L.001	L.001	--	--	L.001	--	--	.0005
82-07-28	1541	325	--	L.001 05R	L.001	.001	L.001 05R	L.001	L.001	.0003

84-04-06

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0008 LAT. 49D 5M 8S LONG. 114D 31M 32S
HOWELL CREEK. ROAD BRIDGE 750 METRES ABOVE CONFLUENCE WITH FLATHEAD RIVER. BRITISH COLUMBIA.
(INTERPRETIVE REPORT STATION 2)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	34302L SELENIUM EXTRBLE. SE MG/L	42302P MOLYBDENUM EXTRBLE. MO MG/L	48302P CADMIUM EXTRBLE. CD MG/L	56302P BARIUM EXTRBLE. BA MG/L	80311P MERCURY EXTRBLE. HG UG/L	80311 MERCURY EXTRBLE HG UG/L	80312 MERCURY EXTRBLE. HG UG/L	82302P LEAD EXTRBLE. PB MG/L
75-12-18	1400	325	.0003	--	.0100	.25	L.05	--	--	L.001
76-02-05	1445	325	--	.0005	L.0002	1.50	L.05	--	--	L.001
76-04-12	1130	325	.0002	--	L.0002	.29	L.05	--	--	L.001
76-05-27	1530	325	.0001	--	L.0002	.12	L.05	--	--	L.001
76-05-28	1145	325	.0001	--	L.0002	.14	L.05	--	--	.001
76-05-29	1345	325	.0001	--	L.0002	.15	L.05	--	--	.001
76-06-14	1045	325	.0001	--	L.0002	.16	L.05	--	--	L.001
76-06-16	1230	325	.0001	--	--	--	--	--	--	--
76-08-04	1430	325	.0002	--	L.0002	.13	L.05	--	--	L.001
76-08-05	1720	325	.0002	--	--	--	--	--	--	--
76-09-11	1530	325	.0002	--	L.0002	.21	L.05	--	--	L.001
76-09-12	1425	325	.0002	--	L.0002	.19	--	--	--	L.001
76-09-13	1235	325	.0001	--	L.0002	.20	--	--	--	L.001
82-07-28	1541	325	.0001	--	--	--	L.05 11R	L.05	L.05	.001 02R

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	823021 LEAD EXTRBLE. PB MG/L	823022 LEAD EXTRBLE. PB MG/L
82-07-28	1541	325	.001	.001

FOOTNOTE: L - LESS THAN DETECTION LIMIT G - GREATER THAN MEASUREMENT LIMIT
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION G - PLUS GRAND QUE LA LIMITE MESURE

84-04-13

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0009 LAT. 49D 6M 6S LONG. 114D 35M 48S
CABIN CREEK, 4.5 KILOMETRES ABOVE CONFLUENCE WITH HOWELL CREEK BRITISH COLUMBIA
(INTERPRETIVE REPORT STATION 6)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02011L COLOUR APPARENT REL. UNITS	02041L SPECIFIC CONDUCT. USIE/CM	02041S SPECIFIC CONDUCT. USIE/CM	02061L TEMP. WATER DEG.C.	02061S TEMP. WATER DEG.C.	02073L TURBIDITY JTU	06001R CARBON TOTAL ORGANIC C MG/L	06001I CARBON TOTAL ORGANIC C MG/L
75-08-20	1215	325	--	--	--	--	--	--	1.5	1.7
76-04-12	1245	325	25.	187.	240	22.6	2.0	4.2	4.2	5.1
76-08-05	1400	325	5.	228.	230.	19.9	10.0	.5	5.9	3.9
76-09-11	1350	325	5.	261	300.	21.8	8.0	.4	1.3	L1.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060012 CARBON TOTAL ORGANIC C MG/L	060013 CARBON TOTAL ORGANIC C MG/L	060014 CARBON TOTAL ORGANIC C MG/L	060015 CARBON TOTAL ORGANIC C MG/L	060016 CARBON TOTAL ORGANIC C MG/L	06051R CARBON TOTAL INORGANIC C MG/L	06051I CARBON TOTAL INORGANIC C MG/L	060512 CARBON TOTAL INORGANIC C MG/L
75-08-20	1215	325	1.3	1.8	1.3	1.7	1.1	32.3	32.4	32.8
76-04-12	1245	325	3.2	--	--	--	--	22.9	22.4	23.4
76-08-05	1400	325	4.9	4.2	8.2	8.3	5.9	25.0	27.0	26.0
76-09-11	1350	325	2.4	L1.0	L1.0	L1.0	1.2	35.3	35.0	35.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060513 CARBON TOTAL INORGANIC C MG/L	060514 CARBON TOTAL INORGANIC C MG/L	060515 CARBON TOTAL INORGANIC C MG/L	060516 CARBON TOTAL INORGANIC C MG/L	06536R PHENOLIC MATERIAL PHENOL MG/L	065361 PHENOLIC MATERIAL PHENOL MG/L	065362 PHENOLIC MATERIAL PHENOL MG/L	065363 PHENOLIC MATERIAL PHENOL MG/L
75-08-20	1215	325	32.0	31.9	32.1	32.3	--	--	--	--
76-04-12	1245	325	--	--	--	--	L.0005	L.0005	L.0005	L.0005
76-08-05	1400	325	26.0	23.0	24.0	24.0	L.0005 36L	--	--	--
76-09-11	1350	325	36.0	36.0	35.0	35.0	L.0005	L.0005	L.0005	L.0005

84-04-13

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0009 LAT. 49D 6M 6S LONG. 114D 35M 48S
CABIN CREEK. 4.5 KILOMETRES ABOVE CONFLUENCE WITH HOWELL CREEK. BRITISH COLUMBIA.
(INTERPRETIVE REPORT STATION 6)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07110R NITROGEN DISSOLVED NO3 & NO2 N MG/L	071101 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071102 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071103 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071104 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071105 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071106 NITROGEN DISSOLVED NO3 & NO2 N MG/L	07557R NITROGEN DISSOLVED AMMONIA N MG/L
75-08-20	1215	325	.013	.017	.019	.015	.013	.010	.005	.107
76-04-12	1245	325	.131	.131	.131	--	--	--	--	.014
76-08-05	1400	325	.051	.110	.088	.013	.010	.076	.011	.011
76-09-11	1350	325	.024	.026	.026	.017	.015	.030	.032	.008

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	075571 NITROGEN DISSOLVED AMMONIA N MG/L	075572 NITROGEN DISSOLVED AMMONIA N MG/L	075573 NITROGEN DISSOLVED AMMONIA N MG/L	075574 NITROGEN DISSOLVED AMMONIA N MG/L	075575 NITROGEN DISSOLVED AMMONIA N MG/L	075576 NITROGEN DISSOLVED AMMONIA N MG/L	07651R NITROGEN DISSOLVED N MG/L	076511 NITROGEN DISSOLVED N MG/L
75-08-20	1215	325	.135	.260	.059	.047	.103	.038	.23	.33
76-04-12	1245	325	.014	.014	--	--	--	--	.22	.22
76-08-05	1400	325	.019	.015	.007	.007	.013	.006	.12	.20
76-09-11	1350	325	.009	.008	.008	.004	.011	.009	.08	.09

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	076512 NITROGEN DISSOLVED N MG/L	076513 NITROGEN DISSOLVED N MG/L	076514 NITROGEN DISSOLVED N MG/L	076515 NITROGEN DISSOLVED N MG/L	076516 NITROGEN DISSOLVED N MG/L	09106L FLUORIDE DISSOLVED F MG/L	10101L ALKALINITY TOTAL CACO3 MG/L	10151L ALKALINITY PHENOL PHTHALEIN CACO3 MG/L
75-08-20	1215	325	.41	.16	.17	.22	.10	--	--	--
76-04-12	1245	325	.23	--	--	--	--	.10	92.0	0.0
76-08-05	1400	325	.15	.08	.07	.13	.07	.08	119.0	1.5
76-09-11	1350	325	.07	.09	.07	.09	.09	.09	135.0	0.0

84-04-13

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0009 LAT. 49D 6M 6S LONG. 114D 35M 48S
CABIN CREEK, 4.5 KILOMETRES ABOVE CONFLUENCE WITH HOWELL CREEK BRITISH COLUMBIA
(INTERPRETIVE REPORT STATION 6)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10301L PH PH UNITS	10301S PH PH UNITS	10401L RESIDUE NONFILTR. MG/L	10451L RESIDUE FILTERABLE MG/L	10501L RESIDUE FIXED NONFILTR MG/L	10551L RESIDUE FIXED FILTERABLE MG/L	10603L HARDNESS TOTAL CACO3 MG/L	11103L SODIUM DISSOLVED NA MG/L
76-04-12	1245	325	7.9	8.0	36.	116.	28.	36	99.1	8
76-08-05	1400	325	8.4	--	2.	170.	LO.	100	123.0	1.2
76-09-11	1350	325	8.2	8.4	2.	220.	LO.	114	139.0	1.4

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	12101L MAGNESIUM DISSOLVED (CALCD.) MG MG/L	14105L SILICA REACTIVE SIO2 MG/L	15102R PHOSPHORUS TOTAL DISSOLVED P MG/L	15102I PHOSPHORUS TOTAL DISSOLVED P MG/L	15102Z PHOSPHORUS TOTAL DISSOLVED P MG/L	15102J PHOSPHORUS TOTAL DISSOLVED P MG/L	15406R PHOSPHORUS TOTAL P MG/L	15406I PHOSPHORUS TOTAL P MG/L
75-08-20	1215	325	--	--	--	--	--	--	.036	.032
76-04-12	1245	325	6.3	4.9	--	--	--	--	.090	.093
76-08-05	1400	325	7.7	4.6	.017	.020	.016	.016	.029	.040
76-09-11	1350	325	9.0	5.1	.012	.011	.011	.015	.012	.011

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	15406Z PHOSPHORUS TOTAL P MG/L	15406J PHOSPHORUS TOTAL P MG/L	15406Y PHOSPHORUS TOTAL P MG/L	15406K PHOSPHORUS TOTAL P MG/L	15406L PHOSPHORUS TOTAL P MG/L	16306L SULPHATE DISSOLVED SO4 MG/L	17206L CHLORIDE DISSOLVED CL MG/L	19103L POTASSIUM DISSOLVED K MG/L
75-08-20	1215	325	.034	.035	.038	.034	.040	--	--	--
76-04-12	1245	325	.087	--	--	--	--	5.0	.4	.5
76-08-05	1400	325	.027	.025	.023	.028	.028	6.7	.4	.5
76-09-11	1350	325	.011	.010	.011	.011	.019	8.0	.5	.5

84-04-13

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0009 LAT. 49D 6M 6S LONG. 114D 35M 48S
'CABIN CREEK, 4.5 KILOMETRES ABOVE CONFLUENCE WITH HOWELL CREEK. BRITISH COLUMBIA
(INTERPRETIVE REPORT STATION 6)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	20101L CALCIUM DISSOLVED CA MG/L	25304P MANGANESE EXTRBLE. MN MG/L	26305P IRON EXTRBLE. FE MG/L	27302P COBALT EXTRBLE. CO MG/L	28302P NICKEL EXTRBLE. NI MG/L	29305P COPPER EXTRBLE. CU MG/L	30305P ZINC EXTRBLE. ZN MG/L	33304L ARSENIC EXTRBLE. AS MG/L
76-04-12	1245	325	29.3	.05	29 04P	L.001	L.001	L.001	L.001	.0005
76-08-05	1400	325	36.5	L.01	.030	L.001	L.001	L.001	L.001	.0003
76-09-11	1350	325	40.8	L.01	.016	L.001	L.001	L.001	L.001	.0002

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	34302L SELENIUM EXTRBLE. SE MG/L	48302P CADMIUM EXTRBLE. CD MG/L	56302P BARIUM EXTRBLE. BA MG/L	80311P MERCURY EXTRBLE. HG UG/L	82302P LEAD EXTRBLE. PB MG/L
76-04-12	1245	325	.0002	L.0002	.26	L.05	L.001
76-08-05	1400	325	.0002	L.0002	.13	L.05	L.001
76-09-11	1350	325	.0002	L.0002	.22	L.05	L.001

FOOTNOTE: L - LESS THAN DETECTION LIMIT G - GREATER THAN MEASUREMENT LIMIT
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION G - PLUS GRAND QUE LA LIMITE MESURE

84-04-26

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0010
CABIN CREEK. 9 KILOMETRES ABOVE CONFLUENCE WITH HOWELL CREEK LAT. 49D 5M 44S LONG. 114D 39M 20S
(INTERPRETIVE REPORT STATION 8) BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02011L COLOUR APPARENT REL. UNITS	02041L SPECIFIC CONDUCT. USIE/CM	02041S SPECIFIC CONDUCT. USIE/CM	02061L TEMP. WATER DEG.C.	02061S TEMP. WATER DEG.C.	02073L TURBIDITY JTU	06001L CARBON TOTAL ORGANIC C MG/L	06051L CARBON TOTAL INORGANIC C MG/L
76-04-12	1530	325	25.	163.	185.	22.6	5	42.0	6.0	19.6

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	06536R PHENOLIC MATERIAL PHENOL MG/L	06536I PHENOLIC MATERIAL PHENOL MG/L	06536S PHENOLIC MATERIAL PHENOL MG/L	06536T PHENOLIC MATERIAL PHENOL MG/L	07110R NITROGEN DISSOLVED NO3 & NO2 N MG/L	07557R NITROGEN DISSOLVED AMMONIA N MG/L	07655R NITROGEN TOTAL DISSOLVED N MG/L	09106L FLUORIDE DISSOLVED F MG/L
76-04-12	1530	325	L.0005	L.0005	L.0005	L 0005	.233 10L	010 57L	.345 55L	.07

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10101L ALKALINITY TOTAL CACO3 MG/L	10151L ALKALINITY PHENOL PHTHALEIN CACO3 MG/L	10301L PH PH UNITS	10301S PH PH UNITS	10401L RESIDUE NONFILTR. MG/L	10451L RESIDUE FILTERABLE MG/L	10501L RESIDUE FIXED NONFILTR MG/L	10551L RESIDUE FIXED FILTERABLE MG/L
76-04-12	1530	325	79.0	0.0	7.6	8.2	122.	100.	105.	62.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10603L HARDNESS TOTAL CACO3 MG/L	11103L SODIUM DISSOLVED NA MG/L	12101L MAGNESIUM DISSOLVED (CALCD.) MG MG/L	14105L SILICA REACTIVE SIO2 MG/L	15406R PHOSPHORUS TOTAL P MG/L	15406I PHOSPHORUS TOTAL P MG/L	15406J PHOSPHORUS TOTAL P MG/L	16306L SULPHATE DISSOLVED SO4 MG/L
76-04-12	1530	325	84.7	1.1	4.0	4.2	.215	.179	.251	5.8

84-04-26

NAQUADAT
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0010
CABIN CREEK. 9 KILOMETRES ABOVE CONFLUENCE WITH HOWELL CREEK. LAT. 49D 5M 44S LONG. 114D 39M 20S
(INTERPRETIVE REPORT STATION 8) BRITISH COLUMBIA.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	17206L CHLORIDE DISSOLVED CL MG/L	19103L POTASSIUM DISSOLVED K MG/L	20101L CALCIUM DISSOLVED CA MG/L	25304P MANGANESE EXTRBLE. MN MG/L	26305P IRON EXTRBLE. FE MG/L	27302P COBALT EXTRBLE. CO MG/L	28302P NICKEL EXTRBLE. NI MG/L	29305P COPPER EXTRBLE. CU MG/L
76-04-12	1530	325	.4	.6	27.4	.06	.46 04P	L.001	L.001	.001

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	30305P ZINC EXTRBLE. ZN MG/L	33304L ARSENIC EXTRBLE. AS MG/L	34302L SELENIUM EXTRBLE. SE MG/L	48302P CADMIUM EXTRBLE. CD MG/L	56302P BARIUM EXTRBLE. BA MG/L	80311P MERCURY EXTRBLE. HG UG/L	82302P LEAD EXTRBLE. PB MG/L
76-04-12	1530	325	.004	.0012	.0002	L.0002	.29	L.05	.001

FOOTNOTE: L - LESS THAN DETECTION LIMIT G - GREATER THAN MEASUREMENT LIMIT
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION G - PLUS GRAND QUE LA LIMITE MESURE

Table 3

Total carbon concentrations (ug g^{-1}) in settled sediments of three particle sizes.

Exposure Period*	Station	Sample No.	Mesh size used to separate particle size (particle retention size in brackets) G 80 (L 180 microns)	20-80 (180-850 microns)	L 20 (850-2000 microns)
April 12-August 5	1	C-100	29700	16200	17200
	1	C-101	26400	13500	17800
	1	C-102	27200	15400	18000
	1	C-103	27000	14600	20000
	1	C-104	30300	16200	13300
August 5-Sept 11	1	C-105	27700	16200	11200
	1	C-106	29900	17000	-
	1	C-107	46000	20800	16400
	1	C-108	31300	16900	9150
	1	C-109	30500	17000	12900
April 12-August 5	3	C-300	23200	21600	19400
	3	C-301	23100	24800	27300
	3	C-302	24200	25000	22700
	3	C-303	24800	24200	-
	3	C-304	24000	20000	-
August 5-Sept 11	3	C-305	23800	22500	7100
	3	C-306	23400	21400	8140
	3	C-307	24100	19600	18400
	3	C-308	24300	33600	15300
	3	C-309	24700	24300	15100
	3	C-310	19800	20700	-

*Exposure period refers to the length of time collection jars were left in the stream bed.

Table 4

Total nitrogen concentrations ($\mu g\ g^{-1}$) in settled sediments of three particle sizes.

Exposure Period*	Station	Sample No.	Mesh size used to separate particle size (particle retention size in brackets) G 80 (L 180 microns)	20-80 (180-850 microns)	L 20 (850-2000 microns)
April 12-August 5	1	C-100	1780	1280	1970
	1	C-101	1200	1220	1080
	1	C-102	1170	1240	800
	1	C-103	1070	642	1140
	1	C-104	1550	1310	661
August 5-Sept 11	1	C-105	1260	430	564
	1	C-106	1200	552	-
	1	C-107	1630	1180	1030
	1	C-108	1470	993	746
	1	C-109	1870	1110	458
April 12-August 5	3	C-300	1520	1150	590
	3	C-301	1200	2490	1770
	3	C-302	2100	2100	1320
	3	C-303	1610	1460	-
	3	C-304	1530	1710	-
August 5-Sept 11	3	C-305	1070	2380	1370
	3	C-306	2100	1570	1170
	3	C-307	1690	1720	2520
	3	C-308	1200	2180	1170
	3	C-309	1400	1320	1160
	3	C-310	1150	2760	-

*Exposure period refers to the length of time collection jars were left in the stream bed.

Table 5

Total phosphorus concentrations ($\mu g\ g^{-1}$) in settled sediments of three particle sizes.
I.S. = insufficient sample

Exposure Period*	Station	Sample No.	Mesh size used to separate particle size (particle retention size in brackets) G 80 (L 180 microns)	20-80 (180-850 microns)	L 20 (850-2000 microns)
April 12-August 5	1	C-100	303	590	780
	1	C-101	751	722	740
	1	C-102	589	579	728
	1	C-103	350	710	740
	1	C-104	350	648	744
August 5-Sept 11	1	C-105	275	581	719
	1	C-106	I.S.	547	770
	1	C-107	347	698	751
	1	C-108	336	914	773
	1	C-109	422	459	759
April 12-August 5	3	C-300	374	982	713
	3	C-301	I.S.	691	709
	3	C-302	I.S.	804	721
	3	C-303	I.S.	840	715
	3	C-304	I.S.	982	723
August 5-Sept 11	3	C-305	430	550	661
	3	C-306	401	531	661
	3	C-307	518	467	689
	3	C-308	362	578	698
	3	C-309	371	515	697
	3	C-310	I.S.	493	611

*Exposure period refers to the length of time collection jars were left in the stream bed.

Table 6

Metal levels in slimy sculpins (*Cottus cognatus*) from the Flathead River system.

Station No.	Sample No.	Collection Date	No. of Slimy Sculpins Homogenate	Total Length (cm)	Weight (gm)	Hg $\mu g\ g^{-1}$ (wet wt.)	Cu $\mu g\ g^{-1}$ (wet wt.)	Fe $\mu g\ g^{-1}$ (wet wt.)	Pb $\mu g\ g^{-1}$ (wet wt.)	Zn $\mu g\ g^{-1}$ (wet wt.)
				4.5	.933					
				8.4	6.734					
1	1	Sept. 13, 1976	5	8.7	8.180	.03	1.3	49.	2.3	22.
				7.6	5.057					
				8.1	5.200					
				8.0	5.293					
				8.2	5.525					
1	2	Sept. 13, 1976	5	7.1	3.518	.03	1.2	38.	2.1	19.
				8.9	7.630					
				7.4	4.046					
				7.4	3.958					
				8.0	4.677					
1	4	Sept. 13, 1976	5	6.7	3.340	.03	1.1	37.	2.0	17.
				7.3	3.939					
				6.3	2.588					
				4.9	1.046					
				7.9	5.088					
1	5	Sept. 13, 1976	5	6.7	2.911	.03	1.2	30.	2.2	21.
				8.4	6.432					
				7.2	3.836					
				8.3	6.225					
				7.9	5.132					
1	6	Sept. 13, 1976	5	8.1	5.722	.03	1.3	43.	2.3	22.
				8.5	6.268					
				7.8	5.037					
				9.8	10.053					
				8.7	8.468					
1	7	Sept. 13, 1976	5	9.0	7.509	.04	1.3	51.	2.3	22.
				7.9	5.173					
				8.1	5.061					

Table 6 (Continued)

Station No.	Sample No.	Collection Date	No. of Slimy Sculpins in Homogenate	Total Length (cm)	Weight (gm)	Hg $\mu g\ g^{-1}$ (wet wt.)	Cu $\mu g\ g^{-1}$ (wet wt.)	Fe $\mu g\ g^{-1}$ (wet wt.)	Pb $\mu g\ g^{-1}$ (wet wt.)	Zn $\mu g\ g^{-1}$ (wet wt.)
3	1	Sept. 14, 1976	5	7.6 8.3 7.9 8.0 5.4	4.704 5.705 4.951 5.908 2.209	.03	1.1	48.	2.6	22.
3	2	Sept. 14, 1976	5	9.5 8.8 8.2 8.0 7.9	9.087 6.360 5.364 5.412 4.591	.04	1.1	120.	2.1	21.
3	3	Sept. 14, 1976	5	7.6 9.0 7.5 7.9 6.8	4.500 9.250 4.415 4.900 2.957	.03	1.2	61.	2.6	25.
3	4	Sept. 14, 1976	5	8.2 9.6 8.4 8.5 7.2	5.246 9.940 5.935 5.396 3.787	.04	1.3	48.	2.8	22.
3	5	Sept. 14, 1976	5	8.6 8.9 9.0 7.5 7.4	6.829 7.526 7.007 3.805 3.895	.04	1.1	70.	2.7	23.

Table 6 (Continued)

Station No.	Sample No.	Collection Date	No. of Slimy Sculpins in Homogenate	Total Length (cm)	Weight (gm)	Hg $\mu g\ g^{-1}$ (wet wt.)	Cu $\mu g\ g^{-1}$ (wet wt.)	Fe $\mu g\ g^{-1}$ (wet wt.)	Pb $\mu g\ g^{-1}$ (wet wt.)	Zn $\mu g\ g^{-1}$ (wet wt.)
				8.3	5.241					
				7.5	4.216					
3	6	Sept. 14, 1976	5	8.0	5.258	.03	1.1	29.	2.2	16.
				7.8	4.648					
				5.0	0.960					
				8.6	6.488					
				6.6	2.828					
3	7	Sept. 14, 1976	6	7.4	3.916	.03	1.3	60.	2.3	24.
				6.6	2.935					
				6.9	2.939					
				7.2	3.360					
				12.4	22.078					
				10.2	13.062					
6	1	Sept. 13-14, 1976	5	7.0	3.756	.04	1.4	43.	2.1	26.
				7.1	3.762					
				4.5	0.805					
				10.9	17.388					
				9.1	10.555					
6	2	Sept. 13-14, 1976	5	8.0	5.606	.03	1.2	26.	2.0	23.
				6.8	3.230					
				5.4	1.643					
				11.5	17.262					
				10.6	18.031					
6	3	Sept. 13-14, 1976	5	8.7	6.530	.02	1.2	41.	2.1	21.
				8.3	6.394					
				6.9	3.200					

Table 6 (Continued)

Station No.	Sample No.	Collection Date	No. of Slimy Sculpins in Homogenate	Total Length (cm)	Weight (gm)	Hg ug g^{-1} (wet wt.)	Cu ug g^{-1} (wet wt.)	Fe ug g^{-1} (wet wt.)	Pb ug g^{-1} (wet wt.)	Zn ug g^{-1} (wet wt.)
6	4	Sept. 13-14, 1976	5	10.2 9.5 8.0 7.1 5.2	12.910 11.410 5.533 3.647 1.030	.04	1.3	45.	2.1	20.
6	5	Sept. 13-14, 1976	9	9.9 10.0 9.3 6.1 5.2 4.6 4.5 5.3 5.1	13.274 13.225 8.700 2.278 1.276 1.012 0.848 1.413 1.183	.03	1.6	53.	2.2	25.
6	6	Sept. 13-14, 1976	6	7.8 10.4 9.0 9.5 8.9 6.6	4.920 14.476 8.895 10.808 8.507 2.947	.04	1.6	43.	2.5	23.
7	1	Sept. 14, 1976	5	10.8 10.5 9.9 9.2 8.9	16.794 12.800 10.454 8.213 6.663	.04	1.2	38.	2.5	19.

Table 6 (Continued)

Station No.	Sample No.	Collection Date	No. of Slimy Sculpins in Homogenate	Total Length (cm)	Weight (gm)	Hg ug g^{-1} (wet wt.)	Cu ug g^{-1} (wet wt.)	Fe ug g^{-1} (wet wt.)	Pb ug g^{-1} (wet wt.)	Zn ug g^{-1} (wet wt.)
				10.5	12.647					
				7.1	3.949					
7	2	Sept. 14, 1976	5	7.3	3.039	.03	1.0	51.	2.0	20.
				6.4	2.200					
				6.1	1.999					
				9.3	8.051					
				10.6	12.146					
7	3	Sept. 14, 1976	5	9.0	8.264	.05	1.2	58.	2.5	20.
				7.8	5.753					
				6.6	2.930					
				9.8	11.530					
				7.6	4.186					
				7.3	3.209					
7	4	Sept. 14, 1976	7	6.6	2.838	.03	1.5	34.	2.1	22.
				5.1	1.115					
				5.2	1.231					
				4.6	0.855					
				11.3	16.373					
				10.8	16.063					
7	5	Sept. 14, 1976	5	9.9	10.217	.04	1.3	75.	2.5	26.
				8.4	5.928					
				7.6	4.547					

Table 6 (Continued)

Station No.	Sample No.	Collection Date	No. of Slimy Sculpins in Homogenate	Total Length (cm)	Weight (gm)	Hg ug g^{-1} (wet wt.)	Cu ug g^{-1} (wet wt.)	Fe ug g^{-1} (wet wt.)	Pb ug g^{-1} (wet wt.)	Zn ug g^{-1} (wet wt.)
7	6	Sept. 14, 1976	8	11.0 9.0 8.5 8.3 6.7 5.2 5.9 4.9	15.883 7.809 6.310 6.384 3.732 1.242 0.950 0.909	.04	1.4	100.	2.5	23.
Food and Drug Directorate Standards for edible fish flesh						.5	100.		10.	100.

Table 7

Total areas of whole rocks (cm^2)
from which periphyton samples were collected.

	April, 1976		June, 1976		August, 1976		Sept., 1976		August, 1980		July, 1982	
	Rock No.	Area (cm^2)	Rock No.	Area (cm^2)	Rock No.	Area (cm^2)	Rock No.	Area (cm^2)	Rock No.	Area (cm^2)	Rock No.	Area (cm^2)
Station												
1	104	270.9			W5	226.5	W104	191.2	NOT SAMPLED			
	105	330.6			W6	175.6	W105	222.4				
2					W7	102.6	W108	130.8	NOT SAMPLED		4A	206.4
					W8	66.2	W109	212.7			4B	177.1
											4C	204.6
			W1	238.0	W3	385.9	W100	263.7	F1	300.3	3A	279.6
3	110	350	W2	275.1	W4	426.0	W101	176.7	F2	662.7	3B	311.1
	111	350	W3	177.2							3C	284.6
4					W1	416.1	W102	240.7	NOT SAMPLED			
					W2	356.6	W103	154.7				
5					W9	101.2	W110	142.7	NOT SAMPLED			
					W10	187.6	W111	281.7				
6							W106	213.5	NOT SAMPLED			
							W107	226.2				
7					W11	163.2	W114	159.6	NOT SAMPLED			
					W12	211.0	W115	124.6				
9					W13	215.3	W112	167.3	NOT SAMPLED			
					W14	248.9	W113	210.2				

Table 8a.

Chlorophyll a (mg m^{-2}) from rock subsamples collected April - September, 1976.

	April, 1976		June, 1976		August, 1976		September, 1976	
	Sample No.	Chlorophyll	Sample No.	Chlorophyll	Sample No.	Chlorophyll	Sample No.	Chlorophyll
Station								
1	102	11.	005	13.	R5	L2.1	R104	L2.8
	103	L4.2	006	190.	R6	L2.1	R105	4.9
2	106	8.	003	110.	R7	4.2	R108	31.
	107	32.	004	32.	R8	22.	R109	30.
3	108	L4.2	110	L11.	R3	3.2	R100	39.
	109	L4.2	111	L11.	R4	2.1	R101	22.
4	112	L4.2	008	L11.	R1	L2.1	R102	L2.8
	113	4.2	009	42.	R2	L2.1	R103	L2.8
5	114	13.	001	L11.	R9	19.	R110	20.
	115	L4.2	002	35.	R10	-	R111	L2.8
6	116	6.3	NOT SAMPLED		R11	2.1	R106	23.
	117	L4.2			R12	17.	R107	18.
7	118	23.	020	21.	R13	31.	R114	44.
	119	66.	021	L11.	R14	21.	R115	42.
9	NOT SAMPLED		022	L11.	R15	13.	R112	39.
			023	49.	R16	7.4	R113	L2.8

Table 8b.

Chlorophyll a (mg m^{-2}) from whole rocks collected April 1976 - August, 1980.

	April, 1976		August, 1976		September, 1976		August, 1980	
	Sample No.	Chlorophyll	Sample No.	Chlorophyll	Sample No.	Chlorophyll	Sample No.	Chlorophyll
Station								
1	104	0.18	W5	0.13	W104	0.59	NOT SAMPLED	
	105	0.15	W6	0.17	W105	0.76		
2	NOT SAMPLED		W7	8.5	W108	-	NOT SAMPLED	
			W8	1.2	W109	L0.15		
3	110	0.14	W3	0.90	W100	L0.12	F1	5.1
	111	0.14	W4	0.56	W101	1.0	F2	5.1
4	NOT SAMPLED		W1	0.64	W102	2.2	NOT SAMPLED	
			W2	0.37	W103	0.21		
5	NOT SAMPLED		W9	19.	W110	1.6	NOT SAMPLED	
			W10	1.8	W111	L0.11		
6	NOT SAMPLED		NOT SAMPLED		W106	L0.15	NOT SAMPLED	
					W107	0.88		
7	NOT SAMPLED		W11	1.8	W114	1.05	NOT SAMPLED	
			W12	1.8	W115	0.71		
9	NOT SAMPLED		W13	1.4	W112	1.2	NOT SAMPLED	
			W14	1.4	W113	0.42		

Table 8c.

Chlorophyll a (mg m^{-2}) from plexiglass plates collected August - September, 1976.

	August, 1976		September, 1976	
	Sample No.	Chlorophyll	Sample No.	Chlorophyll
Station				
1	P3	0.089	P104	0.89
	P4	0.12	P105	1.1
2	P5	0.036	P108	0.14
	P6	L0.044	P109	L0.14
3	NOT SAMPLED		P100	L0.14
			P101	0.21
4	P1	0.061	P102	0.14
	P2	0.065	P103	0.18
5	NOT SAMPLED		P110	0.89
			P111	0.68
6	NOT SAMPLED		NOT SAMPLED	
7	P7	0.14	P114	0.75
	P8	1.8	P115	1.0
9	P9	0.69	P112	1.0
	P10	2.1	P113	0.32

Table 9a.

Organic biomass (mg cm^{-2} as ash-free dry weight) of periphytic algae from rock subsamples collected April - September, 1976.

	April, 1976		June, 1976		August, 1976		September, 1976	
	Sample No.	Weight	Sample No.	Weight	Sample No.	Weight	Sample No.	Weight
Station								
1	102	0.1316	005	0.7368	R5	0.4474	R104	0.3509
	103	0.1579	006	7.5000	R6	0.2632	R105	0.3860
2	106	0.4474	003	51.1842	R7	12.5789	R108	1.5439
	107	1.4211	004	2.2368	R8	6.4211	R109	1.4737
3	108	0.2105	110	0.8158	R3	0.2632	R100	2.8772
	109	0.2105	111	0.2895	R4	0.8421	R101	1.3333
4	112	0.1579	008	0.7632	R1	0.3684	R102	0.0702
	113	0	009	1.4737	R2	0.4211	R103	0.2456
5	114	0.1579	001	0.1053	R9	2.8684	R110	2.8772
	115	0.1579	002	1.5789	R10	8.1579	R111	0.5614
6	116	0.3684	NOT SAMPLED		R11	13.7895	R106	0.4912
	117	0.1053			R12	1.4211	R107	0.4912
7	118	0.8421	020	4.0263	R13	1.1842	R114	1.2632
	119	1.6842	021	1.3158	R14	3.6842	R115	3.6842
9	NOT SAMPLED		022	2.0526	R15	0.9474	R112	0.5263
			023	2.7895	R16	0.2368	R133	0.2456

Table 9b.

Organic biomass (mg cm^{-2} as ash-free dry weight) of periphytic algae from whole rocks collected April 1976 - July, 1982.

	April, 1976		June, 1976		August, 1976		September, 1976		July, 1982	
	Sample No.	Weight	Sample No.	Weight	Sample No.	Weight	Sample No.	Weight	Sample No.	Weight
Station										
1	104	0.0044	NOT SAMPLED		W5	0.0040	W104	0.0397	NOT SAMPLED	
	105	0.0064			W6	0.0547	W105	0.0594		
2	NOT SAMPLED		NOT SAMPLED		W7	1.0497	W108	0.4312	4A	0.891
					W8	0.2941	W109	3.7575	4B	0.248
									4C	0.332
3	110	0.0043	W1	0.1786	W3	0.0692	W100	0.3460	3A	0.100
	110	0.0069	W2	0.6341	W4	0.0331	W101	0.5181	3B	0.219
			W3	0.1911						
4	NOT SAMPLED		NOT SAMPLED		W1	0.1154	W102	0.0133	NOT SAMPLED	
					W2	0.3474	W103	0.0284		
5	NOT SAMPLED		NOT SAMPLED		W9	1.3858	W110	0.6975	NOT SAMPLED	
					W10	0.9168	W111	0.2202		
6	NOT SAMPLED		NOT SAMPLED		NOT SAMPLED		W106	0.3783	NOT SAMPLED	
							W107	0.0636		
7	NOT SAMPLED		NOT SAMPLED		W11	2.9099	W114	0.6541	NOT SAMPLED	
					W12	1.4168	W115	0.6795		
9	NOT SAMPLED		NOT SAMPLED		W13	0.1309	W112	0.0694	NOT SAMPLED	
					W14	0.1181	W113	0.0779		

Table 9c.

Organic biomass (mg cm^{-2} as ash-free dry weight) of periphytic algae from plexiglass plates collected August - September, 1976.

	August, 1976		September, 1976	
	Sample No.	Weight	Sample No.	Weight
Station				
1	P3	0.0187	P104	0.0693
	P4	0.0273	P105	0.0444
2	P5	0.0018	P108	0.0071
	P6	0.0020	P109	0.0178
3	NOT SAMPLED		P100	0.0249
			P101	0.0213
4	P1	0.0140	P102	0.0231
	P2	0.0133	P103	0.0196
5	NOT SAMPLED		P110	0.0693
			P111	0.0444
6	NOT SAMPLED		NOT SAMPLED	
7	P7	0.0280	P114	0.0427
	P8	0.3327	P115	0.0551
9	P9	0.0671	P112	0.0907
	P10	0.0947	P113	0.0284

Table 10

Total carbon, nitrogen, and phosphorus content of periphytic algal samples collected in the Flathead River Basin, September, 1976.

Station	Sample No.	Dominant Phyla or Class	Dominant alga(e) and Percent Abundance	Total C[1]	Total N[2]	Total P[3]	C:N:P Ratio
1	C-500	Bacillariophyceae Chlorophyta	*Cocconeis pediculus* 99% *Closterium* sp. 1%	201	29	1.6	127: 18:1
2	C-501	Cyanophyta Chlorophyta	*Nostoc verrucosum* 99% *Stigeoclonium* 1%	335	42	1.5	227: 28:1
2	C-502	Chlorophyta	*Stigeoclonium* sp. 100% *Closterium* sp. trace	390	26	1.1	349: 23:1
3	C-503	Chlorophyta Bacillariophyceae	*Mougeotia* sp. 65% *Cocconeis pediculus* 35%	343	24	0.4	940: 66:1
3	C-504	Chlorophyta	*Ulothrix zonata* 100%	386	20	0.8	480: 24:1
5	C-505	Chlorophyta	*Ulothrix zonata* 100%	395	27	1.1	362: 25:1
6	C-506	Chlorophyta Bacillariophyceae	*Monostroma* sp. 98% *Cocconeis pediculus* 2%	420	42	3.8	112: 11:1
7	C-507	Cyanophyta	*Nostoc verrucosum* 100%	354	34	1.4	248: 24:1
7	C-508	Chlorophyta	*Ulothrix zonata* 100%	193	17	1.6	119: 10:1
9	C-509	Chlorophyta	*Monostroma* sp. 100%	418	32	1.9	217: 17:1

1 ug C mg^{-1} dry wt. algae
2 ug N mg^{-1} dry wt. algae
3 ug P mg^{-1} dry wt. algae

Table 11

A list of all algal species collected from the Flathead River Basin, 1976-1982, indicating whether each species was found in the periphyton or the phytoplankton.

	Periphyton	Phytoplankton
Chrysophyta		
Bacillariophyceae		
Coscinodiscales:		
Cyclotella glomerata Bachmann	+	
Cyclotella sp. A	+	
Melosira varians Agardh		+
Stephanodiscus astraea var. *minutula* (Kützing) Grunow		+
Eunotiales:		
Eunotia pectinalis (O.F. Müller) Rabenhorst		+
Eunotia sp.	+	
Fragilariales:		
Asterionella formosa Hassall	+	
Diatoma elongatum Lyngbye	+	+
Diatoma hiemale (Lyngbye) Heiberg	+	+
Diatoma hiemale var. *mesodon* (Ehrenberg) Grunow	+	+
Diatoma tenue Agardh		+
Diatoma vulgare Bory	+	+
Fragilaria capucina Desmazieres	+	+
Fragilaria construens (Ehrenberg) Grunow	+	+
Fragilaria construens var. *binodis* (Ehrenberg) Grunow	+	+
Fragilaria construens var. *venter* (Ehrenberg) Grunow	+	+
Fragilaria crotonensis Kitton	+	+
Fragilaria heidenii Ostrup	+	
Fragilaria leptostauron (Ehrenberg) Hustedt	+	+
Fragilaria pinnata Ehrenberg	+	
Fragilaria producta (Langerstedt) Grunow	+	
Fragilaria vaucheriae (Kützing) Petersen	+	+
Hannaea arcus (Ehrenberg) Patrick	+	+
Hannaea arcus var. *amphioxys* (Rabenhorst) Patrick	+	+
Meridion circulare (Greville) Agardh	+	+
Synedra acus var. *radians* (Kützing) Hustedt	+	+
Synedra ulna (Nitzsch) Ehrenberg	+	+
Synedra ulna var. *impressa* Hustedt	+	
Synedra ulna var. *oxyrhynchus* (Kützing) Van Heurck	+	+
Synedra ulna var. *oxyrhynchus* f. *contracta* Hustedt	+	
Tabellaria flocculosa Roth (Kützing)	+	

Table 11 (Continued)

	Periphyton	Phytoplankton
Achnanthales:		
Achnanthes flexella (Kützing) Brun	+	
Achnanthes lanceolata (Brébisson) Grunow	+	+
Achnanthes lemmermanni Hustedt	+	
Achnanthes minutissima Kützing	+	+
Achnanthes sp. A	+	+
Achnanthes sp. B	+	+
Achnanthes sp. C	+	
Cocconeis pediculus Ehrenberg	+	+
Cocconeis placentula Ehrenberg	+	+
Rhoicosphenia curvata (Kützing) Grunow	+	+
Naviculales:		
Amphipleura pellucida (Kützing) Kützing	+	+
Amphora ovalis (Kützing) Kützing	+	+
Anomoeneis exilis (Kützing) Cleve	+	+
Cymbella affinis Kützing	+	
Cymbella caespitosa (Kützing) Brun	+	+
Cymbella cistula (Hemprich) Kirchner	+	
Cymbella cymbiformis Agardh	+	
Cymbella gracilis (Rabenhorst) Cleve	+	
Cymbella prostrata (Berkeley) Cleve	+	
Cymbella sinuata Gregory	+	+
Cymbella turgida Gregory	+	+
Cymbella ventricosa (Kützing) Kützing	+	+
Cymbella sp. A	+	
Diploneis decipiens Cleve-Euler		+
Diploneis ovalis (Hilse) Cleve	+	
Frustulia rhomboides (Ehrenberg) De Toni	+	+
Frustulia rhomboides var. *viridula* (Brébisson) Cleve	+	
Gomphonema geminatum (Lyngbye) Agardh	+	+
Gomphonema herbridenses (Gregory) Heribaud	+	
Gomphonema herculeanum Ehrenberg	+	+
Gomphonema intricatum Kützing	+	+
Gomphonema lanceolatum Ehrenberg	+	+
Gomphonema olivaceoides Hustedt	+	
Gomphonema olivaceum (Lyngbye) Kützing	+	+
Gomphonema parvulum (Kützing) Kützing	+	+
Gomphonema parvulum var. *genuinum* Mayer	+	+
Gomphonema sp. A	+	
Gyrosigma kützingii (Grunow) Cleve		+
Gyrosigma spencerii (Hm. Smith) Griffith & Henfrey	+	
Navicula arvensis Hustedt	+	+
Navicula bergii Cleve-Euler		+
Navicula bicephala Hustedt	+	+
Navicula capitata var. *hungarica* (Grunow) Ross	+	
Navicula cryptocephala Kützing	+	+

Table 11 (Continued)

	Periphyton	Phytoplankton
Navicula cuspidata (Kützing) Kützing	+	
Navicula festiva Krasske	+	
Navicula gottlandica Grunow	+	
Navicula minima Grunow	+	
Navicula muralis Grunow	+	+
Navicula pelliculosa Hilse	+	
Navicula pupula Kützing	+	+
Navicula radiosa Kützing	+	+
Navicula reinhardii (Grunow) Grunow	+	
Navicula salinarum var. *intermedia* (Grunow) Cleve	+	+
Navicula tripunctata (O.F. Müller) Bory	+	+
Navicula viridula (Kützing) Ehrenberg	+	
Navicula sp. A	+	+
Navicula sp. B	+	+
Navicula sp. C	+	+
Navicula sp. X		+
Neidium affine (Ehrenberg) Pfitzer		+
Neidium binode (Ehrenberg) Hustedt	+	
Neidium dubium (Ehrenberg) Cleve	+	
Neidium incurvum (Gregory) Ostrup		+
Neidium sp.	+	
Pinnularia subrostrata (A. Cleve) Cleve-Euler		+
Stauroneis anceps Ehrenberg	+	
Stauroneis phoenicenteron (Nitzsch) Ehrenberg	+	
Surirellinees:		
Cymatopleura solea (Brébisson) Wm. Smith	+	+
Denticula elegans Kützing	+	
Epithemia sorex Kützing	+	+
Epithemia turgida (Ehrenberg) Kützing	+	+
Nitzschia acicularis Wm. Smith	+	+
Nitzschia actinastroides (Lemmermann) van Goor	+	
Nitzschia amphibia Grunow	+	
Nitzschia angustata (Wm. Smith) Grunow	+	
Nitzschia dissipata (Kützing) Grunow	+	+
Nitzschia frustulum (Kützing) Grunow	+	+
Nitzschia linearis Wm. Smith	+	+
Nitzschia palea (Kützing) Wm. Smith	+	+
Rhopalodia gibba (Ehrenberg) O.F. Müller	+	
Surirella angustata Kützing	+	+
Surirella biseriata Brébisson	+	
Surirella ovata Kützing	+	

Table 11 (Continued)

	Periphyton	Phytoplankton
Chrysophyceae		
Hydrurus foetidus (Villars) Trevisan	+	
Chrysosaccales-like		+
Xanthophyta		
Tribonema sp.	+	
Unidentified Vaucheriales		+
Chlorophyta		
cf. *Chlamydomonas* sp.		+
Closterium sp.	+	
Microspora sp.	+	
Monostroma sp.	+	
Mougeotia sp.	+	+
Spirogyra sp.	+	
Stigeoclonium sp.	+	
Tetraspora sp.	+	
Ulothrix zonata (Ubber & Mohr) Kützing	+	+
Ulothrix sp. A		+
Ulothrix sp. B		+
Ulothrix sp.	+	
Unidentified filamentous	+	
Cyanophyta		
Lyngbya sp.	+	
Microcystis sp.	+	
Nostoc verrucosum Vaucher	+	
Nostoc sp.		+
Oscillatoria sp.	+	+
Raphidiopsis-like	+	
Rivularia sp.	+	
Tolypothrix sp.	+	
Unidentified species	+	
Unidentified Chrococcales species	+	
Cryptophyta		
Cryptomonas sp.		+

Table 11 (Continued)

1 Although Sheehan et al. (1980) state that they have used the classification system of Van Landingham (1967-1971) for diatoms of genera beginning with A-M, some exceptions were made. These species names and the equivalents suggested by Van Landingham are:

Diatoma hiemale var. *mesodon* = *Diatoma hiemale* var. *quadratum* (Kützing) Ross
Diatoma tenue = *Diatoma elongatum* var. *tenuis* (Agardh) Van Heurck
Fragilaria producta = *Fragilaria virescens* Ralfs
Hannaea arcus = *Ceratoneis arcus* (Ehrenberg) Kützing
Hannaea arcus var. *amphioxys* = *Ceratoneis arcus* var. *amphioxys* (Rabenhorst) Brun
Cymbella gracilis = *Cymbella rabenhorstii* Ross
Gomphonema parvulum var. *genuinum* (spelled *genuina* by Van Landingham) = *Gomphonema parvulum* (Kützing) Kützing

2 Van Landingham does not consider *Gomphonema herbridenses* (which he spells *hebridense*) a valid species, but he gives no distinct equivalent.

Table 12a.

Percent composition (by volume) of non-diatom periphyton from rock subsamples collected on April 10-12, 1976.

Station 1 Rock Number	Station 1 102	103	Station 2 106	107	Station 3 108	109	Station 4 112	113	Station 5 114	115	Station 6 116	117	Station 7 118	119
Species														
Chrysophyta														
Bacillariophyceae	100	100	5	0.9	100	100	100	100	100	100	100	100	10	10
Chrysophyceae														
Hydrurus foetidus	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Xanthophyta														
Tribonema sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorophyta														
Closterium sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Microspora sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monostroma sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stigeoclonium sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tetraspora sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ulothrix sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ulothrix zonata	0	0	0	0	0	0	0	0	0	0	0	0	10	5
Unidentified species	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0
Cyanophyta														
Lyngbya sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Microcystis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nostoc verrucosum	0	95	99	0	0	0	0	0	0	0	0	0	80	85
Oscillatoria sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Raphidiopsis-like	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rivularia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tolypothrix sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unidentified species	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unidentified Chrococcales species	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 12b.

Percent composition (by volume) of non-diatom periphyton from rock subsamples collected on June 14-15, 1976.

Station 1 Rock Number	Station 1 005	Station 1 006	Station 2 003	Station 2 004	Station 3 110	Station 3 111	Station 4 008	Station 4 009	Station 5 001	Station 5 002	Station 7 020	Station 7 021	Station 9 022	Station 9 023
Species														
Chrysophyta														
Bacillariophyceae	5	10	20	29	85	75	99	98	70	64	5	25	40	50
Chrysophyceae														
Hydrurus foetidus	95	90	0	70	15	25	0	0	30	35	75	70	60	48
Xanthophyta														
Tribonema sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorophyta										1				
Closterium sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Microspora sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monostroma sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stigeoclonium sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tetraspora sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ulothrix sp.	0	0	5	1	0	0	0	0	0	0	0	5	0	0
Ulothrix zonata	0	0	0	0	0	0	0	0	0	0	20	0	0	0
Unidentified species	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cyanophyta			75											
Lyngbya sp.	0	0	0	0	0	0	0	2	0	0	0	0	0	2
Microcystis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nostoc verrucosum	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Oscillatoria sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Raphidiopsis-like	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rivularia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tolypothrix sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unidentified species	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unidentified Chrococcales species	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 12c.

Percent composition (by volume) of non-diatom periphyton from rock subsamples collected on August 4-5, 1976.

Station 1 Rock Number	Station 1 R5	Station 1 R6	Station 2 R7	Station 2 R8	Station 3 R3	Station 3 R4	Station 4 R1	Station 4 R2	Station 5 R9	Station 5 R10	Station 6 R11	Station 6 R12	Station 7 R13	Station 7 R14	Station 9 R15	Station 9 R16
Species																
Chrysophyta																
Bacillariophyceae	40	25	40	20	25	10	10	5	27	3	0.5	trace	10	54	95	30
Chrysophyceae																
Hydrurus foetidus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Xanthophyta																
Tribonema sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorophyta																
Closterium sp.	0	0	#3*	0	75	0	0	0	70	#3*	0	0	0	0	0	trace
Microspora sp.	0	0	0	0	0	0	0	0	+	0	0	0	0	0	0	0
Monostroma sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	99	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stigeoclonium sp.	0	7.5	#2*	0.8	#1*	0.9	0	0	+	#2*	0	0	0.9	2	0	0
Tetraspora sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ulothrix sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ulothrix zonata	60	67.5	57	79.2	#2*	89.1	0	0	+	91.2	0	trace	87.1	43	5	0
Unidentified species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cyanophyta																
Lyngbya sp.	0	0	0	0	0	0	0	0	0	1	0.5	0.5	0	1	0	3.5
Microcystis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nostoc verrucosum	0	0	0	0	0	0	0	0	0	0	0	99	0	0	0	0
Oscillatoria sp.	0	0	0	0	0	0	90	95	3	0	0	0.5	2	0	0	66.5
Raphidiopsis-like	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rivularia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tolypothrix sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unidentified species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unidentified Chrococcales species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

+ species present

* abundance rank

Table 12d.

Percent composition (by volume) of non-diatom periphyton from rock subsamples collected on September 11-12, 1976.

Station	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
Rock Number	R104	R105	R108	R109	R100	R101	R102	R103	R110	R111	R106	R107	R114	R115	R112	R113
Species																
Chrysophyta																
Bacillariophyceae	18	30	5	1	5	10	30	15	15	20	5	10	25	20	70	35
Chrysophyceae																
Hydrurus foetidus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Xanthophyta																
Tribonema sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorophyta																
Closterium sp.	0	0.7	0	+	0.5	0	0	0	85	80						
Microspora sp.	0	0	0	0	0	0	0	0	+	+	0	0	0	0	0	0
Monostroma sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stigeoclonium sp.	75	69.3	0	+	0.5	0.9	0	0	0	0	0	0	0	0	0	0
Tetraspora sp.	0	0	0	0	0	0	0	0	0	0	0	0	5	40	0	trace
Ulothrix sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ulothrix zonata	5	0	0	50	93	88.6	70	85	+	+	0	0	0	40	0	0
Unidentified species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cyanophyta																
Lyngbya sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Microcystis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nostoc verrucosum	0	0	95	40	0	0	0	0	0	0	95	90	69.3	0	30	65
Oscillatoria sp.	2	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0
Raphidiopsis-like	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rivularia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tolypothrix sp.	0	0	0	0	1	0	0	0	0	0	0	0	0.7	0	0	0
Unidentified species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unidentified Chrococcales species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

+ species present

Table 13a.

Percent composition (by volume) of non-diatom periphyton from whole rocks collected on April 11-12, 1976.

Station 1 Rock Number	Station 1 R104	Station 1 R105	Station 3 R110	Station 3 R111
Species				
Chrysophyta				
Bacillariophyceae	100	100	100	100
Chrysophyceae				
Hydrurus foetidus	0	0	0	0
Xanthophyta				
Tribonema sp.	0	0	0	0
Chlorophyta				
Closterium sp.	0	0	0	0
Microspora sp.	0	0	0	0
Monostroma sp.	0	0	0	0
Mougeotia sp.	0	0	0	0
Spirogyra sp.	0	0	0	0
Stigeoclonium sp.	0	0	0	0
Tetraspora sp.	0	0	0	0
Ulothrix sp.	0	0	0	0
Ulothrix zonata	0	0	0	0
Unidentified species	0	0	0	0
Cyanophyta				
Lyngbya sp.	0	0	0	0
Microcystis sp.	0	0	0	0
Nostoc verrucosum	0	0	0	0
Oscillatoria sp.	0	0	0	0
Raphidiopsis-like	0	0	0	0
Rivularia sp.	0	0	0	0
Tolypothrix sp.	0	0	0	0
Unidentified species	0	0	0	0
Unidentified Chrococcales species	0	0	0	0

Table 13b.

Percent composition (by volume) of non-diatom periphyton from whole rocks collected on August 4-5, 1976.

Station 1 Rock Number	Station 1 W5	Station 1 W6	Station 2 W7	Station 2 W8	Station 3 W3	Station 3 W4	Station 4 W1	Station 4 W2	Station 5 W9	Station 5 W10	Station 7 W11	Station 7 W12	Station 9 W13	Station 9 W14
Species														
Chrysophyta														
Bacillariophyceae	90	15	40	35	25	25	10	40	10	19	20	9	75	15
Chrysophyceae														
Hydrurus foetidus	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Xanthophyta														
Tribonema sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorophyta											5			
Closterium sp.	0	0	6	+	0	0	0	+	0	+	+	0	0	0
Microspora sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monostroma sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stigeoclonium sp.	0.1	42.5	27	58.5	0.7	66.5	40	+	0.9	+	+	15	5	5
Tetraspora sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ulothrix sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ulothrix zonata	4.9	42.5	27	+	69.3	3.5	0	28.5	89.1	56	0	75	15	0
Unidentified species	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cyanophyta										1				
Lyngbya sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Microcystis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nostoc verrucosum	0	0	0	0	0	5	0	0	0	0	74.2	0	5	80
Oscillatoria sp.	0	0	0	0	5	0	50	30	0	0	0	1	0	0
Raphidiopsis-like	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rivularia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tolypothrix sp.	0	0	0	0	0	0	0	0	0	0	0.8	0	0	0
Unidentified species	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unidentified Chrococcales species	5	0	0	0	0	0	0	0	0	0	0	0	0	0

+ species present

Table 13c.

Percent composition (by volume) of non-diatom periphyton from whole rocks collected on September 11-12, 1976.

Station 1 Rock Number	Station 1 W104	Station 1 W105	Station 2 W108	Station 2 W109	Station 3 W100	Station 3 W101	Station 4 W102	Station 4 W103	Station 5 W110	Station 5 W111	Station 6 W106	Station 6 W107	Station 7 W114	Station 7 W115	Station 9 W112	Station 9 W113
Species																
Chrysophyta																
Bacillariophyceae	15	30	20	20	5	5	10	98	30	20	20	30	4.5	10	20	30
Chrysophyceae																
Hydrurus foetidus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Xanthophyta																
Tribonema sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorophyta																
Closterium sp.		70														
Microspora sp.	trace	+	+	1.6	+	0	0	0	21	+	0	0	0.25	3	0	0
Monostroma sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stigeoclonium sp.	80	+	57	0	+	4.2	0	0	0	0	0	0	0	0	0	0
Tetraspora sp.	0	0	0	0	0	0	0	0	0	+	60	0	0.25	21	5	10
Ulothrix sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ulothrix zonata	5	0	+	77.4	4	80.8	85	2	49	40	0	30	54	36	5	20
Unidentified species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cyanophyta																
Lyngbya sp.			20							30	20	40				40
Microcystis sp.	0	0	0	0	trace	0	0	0	0	0	+	+	0	0	0	0
Nostoc verrucosum	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0
Oscillatoria sp.	0	0	+	0	L90	9	0	0	0	+	+	+	41	30	63	+
Raphidiopsis-like	0	0	0	0	0	0	0	0	0	+	+	0	0	0	+	+
Rivularia sp.	0	0	+	1	0	0	0	0	0	+	0	0	0	0	+	0
Tolypothrix sp.	0	0	0	0	trace	0	0	0	0	0	0	0	0	0	0	0
Unidentified species	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Unidentified Chrococcales species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

+ species present

Table 13d.

Percent composition (by volume) of non-diatom periphyton from whole rocks collected on August 26, 1980.

Station 1 Rock Number	Station 3 F1	F2
Species		
Chrysophyta		
Bacillariophyceae	70	40
Chrysophyceae		
Hydrurus foetidus	0	0
Xanthophyta		
Tribonema sp.	0	0
Chlorophyta	10	
Closterium sp.	0	0
Microspora sp.	+	50
Monostroma sp.	0	0
Mougeotia sp.	0	0
Spirogyra sp.	0	0
Stigeoclonium sp.	+	0
Tetraspora sp.	0	0
Ulothrix sp.	0	0
Ulothrix zonata	0	0
Unidentified species	0	0
Cyanophyta		
Lyngbya sp.	0	0
Microcystis sp.	0	0
Nostoc verrucosum	20	10
Oscillatoria sp.	0	0
Raphidiopsis-like	0	0
Rivularia sp.	0	0
Tolypothrix sp.	0	0
Unidentified species	0	0
Unidentified Chrococcales species	0	0

+ species present

Table 13e.

Percent composition (by volume) of non-diatom periphyton from whole rocks collected on July 28, 1982.

Station	Station 1	Station 2				Station 3			
Rock Number	4A	4B	4C	4D[1]	3A	3B	3C	3D[1]
Species								
Chrysophyta								
Bacillariophyceae	35.1	25.5	8.3	8.3	62	54	43.5	47.3
Chrysophyceae								
Hydrurus foetidus	0	0	0	0	0	0	0	0
Xanthophyta								
Tribonema sp.	0	0	0	0	0	0	0	0
Chlorophyta								
Closterium sp.	0	0	0	0	0	0	0	0
Microspora sp.	0	0	0	0	0	0	0	0
Monostroma sp.	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	0	0
Stigeoclonium sp.	0	0	0	0	0	0	6	0
Tetraspora sp.	0	0	0	0	0	0	0	0
Ulothrix sp.	24	24.5	30	0.7	31	46	50	12.7
Ulothrix zonata	40	50	60	0	0	0	0	40
Unidentified species	0	0	0	0	0	0	0	0
Cyanophyta								
Lyngbya sp.	0	0	0	0	0	0	0	0
Microcystis sp.	0	0	0	0	0	0	0	0
Nostoc verrucosum	0	0	0	90	0	0	0.5	0
Oscillatoria sp.	0.9	trace	1.7	1	7	0	0	0
Raphidiopsis-like	0	0	0	0	0	0	0	0
Rivularia sp.	0	0	0	0	0	0	0	0
Tolypothrix sp.	0	0	0	0	0	0	0	0
Unidentified species	0	0	0	0	0	0	0	0
Unidentified Chrococcales species	0	0	0	0	0	0	0	0

[1] qualitative sample only.

Table 14a.

Percent composition (by volume) of non-diatom periphyton from plexiglass plates collected on August 4-5, 1976.

Station 1 / Rock Number	Station 1 P3	Station 1 P4	Station 2 P5	Station 2 P6	Station 4 P1	Station 4 P2	Station 7 P7	Station 7 P8	Station 9 P9	Station 9 P10
Species										
Chrysophyta										
Bacillariophyceae	74	84	73	89	89	90	60	5	85	78
Chrysophyceae										
Hydrurus foetidus	0	0	0	0	0	0	0	0	10	20
Xanthophyta										
Tribonema sp.	0	0	0	0	0	0	0	0	0	0
Chlorophyta	25		25	10	10	9	40	95	5	
Closterium sp.	0	0	0	0	+	+	0	0	0	0
Microspora sp.	0	0	0	0	+	0	0	0	0	0
Monostroma sp.	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0
Spirogyra sp.	0	0	0	0	0	0	+	0	0	0
Stigeoclonium sp.	+	15	#2*	+	0	0	+	+	+	0
Tetraspora sp.	0	0	0	0	0	0	0	0	+	0
Ulothrix sp.	+	0	0	0	0	0	0	+	0	0
Ulothrix zonata	0	0	#1*	+	0	+	+	+	0	2
Unidentified species	0	0	0	0	0	0	0	0	0	0
Cyanophyta	1			1						
Lyngbya sp.	0	0	0	0	0	0	0	0	0	0
Microcystis sp.	0	0	0	0	0	0	0	0	0	0
Nostoc verrucosum	0	0	0	0	0	0	0	0	0	0
Oscillatoria sp.	0	1	2	0	1	1	0	0	0	0
Raphidiopsis-like	0	0	0	0	0	0	0	0	0	0
Rivularia sp.	0	0	0	0	0	0	0	0	0	0
Tolypothrix sp.	0	0	0	0	0	0	0	0	0	0
Unidentified species	0	0	0	0	0	0	0	0	0	0
Unidentified Chrococcales species	0	0	0	0	0	0	0	0	0	0

+ species present

* abundance rank

Table 14b.

Percent composition (by volume) of non-diatom periphyton from plexiglass plates collected on September 11-12, 1976.

Station 1 / Rock Number	Station 1 P104	Station 1 P105	Station 2 P108	Station 2 P109	Station 3 P100	Station 3 P101	Station 4 P102	Station 4 P103	Station 5 P110	Station 5 P111	Station 7 P114	Station 7 P115	Station 9 P112	Station 9 P113
Species														
Chrysophyta														
Bacillariophyceae	85	92	60	85	96	95	95	96	60	95	85	75	70	95
Chrysophyceae														
Hydrurus foetidus	0	0	0	0	0	0	0	0	0	0	0	5	10	0
Xanthophyta														
Tribonema sp.	0	0	0	0	0	0	0	0	10	0	0	0	0	0
Chlorophyta	15			10					20	5	15	15	10	3
Closterium sp.	+	0	0	+	0	0	0	0	+	+	+	+	+	+
Microspora sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	+
Monostroma sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mougeotia sp.	0	0	0	0	0	0	0	0	0	0	0	0	+	0
Spirogyra sp.	0	0	+	0	0	0	0	0	0	0	+	0	0	0
Stigeoclonium sp.	+	0	21	+	3	5	5	2	0	+	0	+	+	0
Tetraspora sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ulothrix sp.	0	3	0	0	0	0	0	0	0	0	0	0	0	0
Ulothrix zonata	+	0	0	0	0	0	0	0	+	0	+	+	0	0
Unidentified species	0	0	+	0	0	0	0	0	0	0	0	0	0	0
Cyanophyta				5								5		
Lyngbya sp.	0	0	0	0	0	0	0	2	10	0	0	0	0	0
Microcystis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nostoc verrucosum	0	5	5	+	1	0	0	0	0	0	0	0	0	0
Oscillatoria sp.	0	0	0	0	0	0	0	0	0	0	0	0	10	2
Raphidiopsis-like	0	0	0	0	0	0	0	0	0	0	0	+	0	0
Rivularia sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tolypothrix sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unidentified species	0	0	0	+	0	0	0	0	0	0	0	+	0	0
Unidentified Chrococcales species	0	0	0	0	0	0	0	0	0	0	0	0	0	0

+ species present

Table 15a.

Periphytic diatom densities (cells cm^{-2}) from replicate rock subsamples collected from seven sites on April 10-12, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7	
	R102	R103	R106	R107	R108	R109	R112	R113	R114	R115	R116	R117	R118	R119
Bacillariophyceae Species														
Coscinodiscales:														
Cyclotella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilariales:														
Asterionella formosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoma hiemale	0	0	23,958	0	0	0	0	0	0	23,958	0	0	0	71,873
D. hiemale var. *mesodon*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D. vulgare	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilaria capucina	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens var. *binodis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens var. *venter*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. leptostauron	0	0	0	0	0	0	0	0	0	0	0	0	23,958	23,958
F. producta	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. vaucheriae	0	0	0	0	0	0	0	0	23,958	0	0	0	0	0
Hannaea arcus	0	0	155,726	0	0	0	0	0	71,873	47,916	23,958	0	167,705	47,916
H. arcus var. *amphioxys*	0	0	71,873	0	0	0	0	0	0	0	0	0	0	0
Meridion circulare	0	0	0	0	0	0	0	0	0	23,958	0	0	215,620	143,747
Synedra ulna	0	0	0	0	0	0	0	11,979	0	0	0	0	59,894	0
S. ulna var. *impressa*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ulna var. *oxyrhynchus*	0	0	0	0	0	0	0	0	119,[illegible]	0	0	0	0	0
Achnanthales:														
Achnanthes flexella	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A. lanceolata	0	0	23,958	0	0	0	0	0	119,[illegible]	23,956	0	0	11,979	23,956
A. lemmermanni	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 15a. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7	
	R102	R103	R106	R107	R108	R109	R112	R113	R114	R115	R116	R117	R118	R119
A. minutissima	215,620	23,958	59,894	0	0	0	0	0	107,810	35,937	23,958	0	287,494	83,852
Achnanthes sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthes sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthes sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis pediculus	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. placentula	0	0	0	0	11,979	0	0	0	0	11,979	47,916	0	23,958	95,831
Rhoicosphenia curvata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naviculales:														
Amphipleura pellucida	0	0	0	0	0	0	0	0	0	0	0	0	23,958	0
Amphora ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cymbella affinis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. caespitosa	0	0	47,916	0	0	23,958	0	0	191,662	0	23,958	0	191,662	742,692
C. cistula	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. cymbiformis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. gracilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. prostrata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. sinuata	71,873	0	0	0	0	0	0	0	0	0	0	0	0	0
C. turgida	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. ventricosa	0	0	0	0	59,894	0	0	0	71,873	23,958	23,958	0	95,832	47,916
Cymbella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diploneis ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Frustulia rhomboides	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. rhomboides var. *viridula*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema geminatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 15a. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7	
	R102	R103	R106	R107	R108	R109	R112	R113	R114	R115	R116	R117	R118	R119
G. herbridenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. herculeanum	0	0	0	0	0	0	0	0	119,789	0	0	0	47,916	23,958
G. intricatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. lanceolatum	23,958	0	0	0	0	0	0	0	0	0	143,747	0	0	0
G. olivaceum	299,472	0	251,557	23,958	143,747	47,916	47,916	47,916	155,726	143,747	515,093	35,937	431,240	155,726
G. parvulum	0	0	0	0	0	0	0	0	0	0	71,873	0	0	191,662
G. parvulum var. *genuinum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gyrosigma spencerii	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula bicephala	0	0	0	0	0	0	47,916	0	0	0	0	0	0	0
N. cryptocephala	0	0	0	0	0	0	0	0	0	0	0	0	0	23,958
N. cuspidata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. festiva	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. gottlandica	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. minima	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. muralis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. pupula	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. radiosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. reinhardii	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. salinarum var. *intermedia*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. tripunctata	0	0	0	0	0	0	0	0	0	0	0	0	23,958	0
Navicula sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula sp. B	11,979	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 15a. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7	
	R102	R103	R106	R107	R108	R109	R112	R113	R114	R115	R116	R117	R118	R119
Neidium binode	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dubium	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stauroneis anceps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. phoenicenteron	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirellinees:														
Cymatopleura solea	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epithemia sorex	0	0	0	0	0	0	0	0	23,958	0	0	0	0	0
E. turgida	0	23,958	0	0	0	0	0	0	23,958	0	0	0	0	0
Nitzschia acicularis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. amphibia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. angustata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dissipata	0	0	23,958	0	0	0	0	0	165,726	0	0	0	0	71,873
N. frustulum	0	0	0	0	0	0	0	0	35,937	0	0	0	71,873	0
N. linearis	0	0	0	0	0	0	0	0	0	0	0	0	23,958	0
N. palea	0	0	0	0	0	0	0	0	0	0	0	0	179,684	23,958
Rhopalodia gibba	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirella angustata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. biseriata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ovata	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 15b.

Periphytic diatom concentrations (cells cm^{-2}) from replicate rock subsamples collected from seven sites on June 14-15, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	R005	R006	R003	R004	R110	R111	R008	R009	R001	R002	R020	R021	R022	R023
Bacillariophyceae Species														
Coscinodiscales:														
Cyclotella sp. A	0	0	0	0	0	0	0	0	0	47,916	0	0	39,930	0
Fragilariales:														
Asterionella formosa	0	0	0	0	0	0	0	0	0	47,916	0	0	0	0
Diatoma hiemale	0	0	239,578	0	0	0	0	0	0	0	0	0	0	0
D. hiemale var. *mesodon*	0	0	0	0	0	0	0	0	0	0	0	0	199,648	0
D. vulgare	0	0	0	0	0	0	0	0	0	0	29,947	39,930	0	39,930
Fragilaria capucina	0	239,578	0	0	0	0	0	0	0	191,662	598,944	0	878,451	559,014
F. construens	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens var. *binodis*	0	0	718,733	0	0	0	0	0	0	95,831	0	0	0	0
F. construens var. *venter*	0	0	479,156	0	0	0	0	0	0	0	0	59,894	0	0
F. leptostauron	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. producta	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. vaucheriae	0	0	0	0	0	0	0	0	0	143,747	0	0	0	0
Hannaea arcus	342,254	1,078,101	479,156	431,240	581,832	0	766,650	359,367	311,451	646,861	1,197,888	1,317,677	6,428,666	4,831,482
H. arcus var. *amphioxys*	205,352	1,078,101	4,312,400	0	290,916	35,937	143,747	0	0	1,078,101	1,167,941	379,331	1,078,099	479,155
Meridion circulare	0	239,578	1,437,467	383,325	0	0	0	0	0	0	149,736	79,859	0	0
Synedra ulna	0	119,789	239,578	47,916	0	11,979	0	0	0	95,831	119,789	0	0	159,718
S. ulna var. *impressa*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ulna var. *oxyrhynchus*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthales:														
Achnanthes flexella	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A. lanceolata	0	0	0	0	0	23,958	0	0	0	0	0	19,965	39,930	0
A. lemmermanni	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 15b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	R005	R006	R003	R004	R110	R111	R008	R009	R001	R002	R020	R021	R022	[illegible]
A. minutissima	0	119,789	0	431,240	68,451	0	263,536	3,174,408	0	0	239,578	0	79,859	39,930
Achnanthes sp. A	0	0	239,578	71,873	0	0	0	0	0	0	29,947	0	0	39,930
Achnanthes sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthes sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis pediculus	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. placentula	0	0	0	0	0	11,979	23,958	0	0	71,873	0	0	0	0
Rhoicosphenia curvata	0	119,789	0	0	0	0	0	0	0	0	0	0	0	0
Naviculales:														
Amphipleura pellucida	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Amphora ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cymbella affinis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. caespitosa	0	119,789	718,733	47,916		47,916	47,916	359,367			239,578	79,859	239,578	159,718
C. cistula	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. cymbiformis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. gracilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. prostrata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. sinuata	0	119,789	0	0	0	0	0	0	0	0	0	0	0	0
C. turgida	0	0	0	215,620	0	0	0	0	0	0	59,894	0	0	0
C. ventricosa	0	119,789	2,036,411	479,156	0	0	47,916	0	23,958	0	0	39,930	0	0
Cymbella sp. A	0	0	239,578	0	0	0	0	0	0	0	0	0	0	0
Diploneis ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Frustulia rhomboides	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. rhomboides var. *viridula*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema geminatum	0	0	0	0	0	0	0	0	0	0	0	39,930	0	0

Table 15b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	R005	R006	R003	R004	R110	R111	R008	R009	R001	R002	R020	R021	R022	R023
G. herbriuenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. herculeanum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. intricatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. lanceolatum	0	0	0	0	68,451	0	598,945	2,216,096	0	0	0	259,542	0	159,718
G. olivaceum	34,225	1,377,574	3,473,878	1,437,468	650,283	35,937	3,857,206	6,588,395	59,894	694,776	449,208	99,824	319,437	519,085
G. parvulum	0	0	1,796,834	622,903	17,113	0	71,873	179,684	491,135	0	0	0	0	0
G. parvulum var. *genuinum*	0	0	0	0	0	0	0	0	0	239,578	0	0	0	0
Gomphonema sp. A	0	119,789	0	0	0	0	0	0	0	95,831	0	0	0	0
Gyrosigma spencerii	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula bicephala	0	0	0	23,958	0	0	0	0	0	0	59,894	0	0	0
N. cryptocephala	0	119,789	0	119,789	0	0	0	0	0	0	0	0	0	0
N. cuspidata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. festiva	0	0	0	0	0	0	0	419,262	0	0	0	0	0	0
N. gottlandica	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. minima	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. muralis	0	0	598,944	191,662	0	0	0	0	0	0	0	0	0	0
N. pupula	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. radiosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. reinhardii	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. salinarum var. *intermedia*	0	0	119,789	0	0	47,916	0	0	0	0	0	0	0	0
N. tripunctata	0	0	239,578	0	0	0	0	0	0	0	0	0	0	0
Navicula sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula sp. B	0	0	0	0	102,676	0	47,916	0	0	0	0	0	39,930	0

Table 15b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	R005	R006	R003	R004	R110	R111	R008	R009	R001	R002	R020	R021	R022	R023
Neidium bincde	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dubium	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stauroneis anceps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. phoenicenteron	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirellinees:														
Cymatopleura solea	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epithemia sorex	0	0	0	0	0	0	0	0	0	0	119,789	0	0	0
E. turgida	0	0	0	0	0	0	0	0	0	23,958	0	0	0	0
Nitzschia acicularis	0	0	0	0	0	0	0	119,789	0	0	0	0	0	0
N. amphibia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. angustata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dissipata	34,225	0	2,275,989	718,734	0	0	0	0	0	0	179,683	0	439,226	0
N. frustulum	0	0	0	0	34,225	0	0	0	0	0	0	0	0	0
N. linearis	0	0	0	23,958	0	0	0	0	0	0	0	0	0	0
N. palea	34,225	119,789	0	718,734	0	0	0	119,789	0	0	0	119,789	79,859	0
Rhopalodia gibba	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirella angustata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. biseriata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ovata	0	119,789	0	0	0	0	0	0	0	0	0	0	0	0

Table 15c.

Periphytic diatom concentrations (cells cm^{-2}) from replicate rock subsamples collected from seven sites on August 4-5, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R5	R6	R7	R8	R3	R4	R1	R2	R9	R10	R11	R12	R13	R14	R15	R16
Bacillariophyceae Species																
Coscinodiscales:																
Cyclotella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilariales:																
Asterionella formosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoma hiemale	0	0	718,734	479,156	0	0	0	0	359,366	79,859	0	0	0	239,578	0	23,958
D. hiemale var. *mesodon*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D. vulgare	0	0	0	0	0	0	0	0	0	0	23,958	0	0	79,859	0	0
Fragilaria capucina	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens var. *binodis*	0	0	0	359,367	0	0	0	0	0	239,578	0	0	0	0	0	0
F. construens var. *venter*	0	23,958	0	119,789	0	0	0	0	0	0	0	0	0	239,578	0	0
F. leptostauron	0	0	0	0	0	0	0	0	0	0	0	0	0	159,718	0	0
F. producta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. vaucheriae	0	0	0	718,734	0	0	0	23,958	79,859	319,437	23,958	0	0	79,859	0	0
Harnaea arcus	11,979	23,958	2,994,725	2,695,252	0	35,937	11,979	0	519,085	918,381	47,916	23,958	0	1,477,395	311,451	407,283
H. arcus var. *amphioxys*	0	0	239,578	0	0	0	0	0	0	0	0	0	0	79,859	0	0
Meridion circulare	0	0	59,894	299,472	0	0	0	0	39,930	0	0	0	0	79,859	11,979	0
Synedra ulna	0	23,958	2,455,674	3,294,198	0	0	0	0	119,789	279,507	11,979	0	47,916	798,592	23,958	0
S. ulna var. *impressa*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ulna var. *oxyrhynchus*	0	0	0	0	0	0	0	0	159,718	0	0	0	0	0	0	0
Achnanthales:																
Achnanthes flexella	0	0	0	0	0	0	0	0	0	0	0	0	0	79,859	0	0
A. lanceolata	0	0	119,789	59,894	0	0	0	0	1,237,818	1,517,325	0	23,958	0	159,718	0	0
A. lemmermanni	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 15c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R5	R6	R7	R8	R3	R4	R1	R2	R9	R10	R11	R12	R13	R14	R15	R16
A. minutissima	0	0	539,050	778,628	59,894	0	47,916	23,958	1,157,958	1,996,480	47,916	0	0	479,155	0	0
Achnanthes sp. A	0	0	239,578	0	0	0	0	0	0	79,859	0	0	0	0	0	0
Achnanthes sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthes sp. C	0	0	0	0	0	0	0	0	0	79,859	0		0	0	0	0
Cocconeis pediculus	0	0	0	0	0	0	0	0	79,859	0	0	0	0	0	0	0
C. placentula	0	11,979	479,156	359,367	0	11,979	0	0	359,366	359,366	1,018,206	47,916	11,979	159,718	23,956	0
Rhoicosphenia curvata	0	0	0	239,578	0	0	0	0	79,859	0	0	0	0	0	0	0
Naviculales:																
Amphipleura pellucida	0	0	179,684	0	0	11,979	0	0	39,930	0	0	0	0	0	0	0
Amphora ovalis	0	0	119,789	0	0	0	0	0	0	0	0	0	0	0	0	0
Cymbella affinis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23,958	0
C. caespitosa	11,979	47,916	1,078,101	1,137,996	0	179,684	0	0	519,085	1,078,099	0	0	23,958	758,662	23,958	23,958
C. cistula	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. cymbiformis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. gracilis	0	0	119,789	0	0	0	0	0	0	0	0	0	0	0	0	0
C. prostrata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. sinuata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. turgida	0	0	0	0	0	0	0	0	79,859	79,859	0	0	0	0	0	0
C. ventricosa	0	0	359,367	1,018,206	0	47,916	0	0	159,718	359,296	167,705	47,916	0	559,014	23,958	0
Cymbella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diploneis ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	79,859	0	0
Frustulia rhomboides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. rhomboides var. *viridula*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema geminatum	0	0	0	0	0	0	0	11,979	119,789	239,578	0	0	0	0	35,937	0

Table 15c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R5	R6	R7	R8	R3	R4	R1	R2	R9	R10	R11	R12	R13	R14	R15	R16
G. herbridenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. herculeanum	0	0	0	0	0	0	0	0	159,718	159,718	0	0	0	0	0	0
G. intricatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. lanceolatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. olivaceum	35,937	71,873	539,050	0	0	119,789	0	11,979	159,718	878,451	83,852	0	0	159,718	0	0
G. parvulum	0	0	1,018,206	1,617,152	23,958	47,916	23,958	0	1,716,973	2,315,917	0	0	23,958	958,310	143,747	23,958
G. parvulum var. *genuinum*	0	0	0	239,578	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gyrosigma spencerii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula bicephala	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. cryptocephala	0	0	119,789	0	0	0	0	0	0	0	11,979	0	0	0	0	0
N. cuspidata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. festiva	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. gottlandica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. minima	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. muralis	0	0	59,894	0	0	0	0	0	79,859	119,789	0	0	0	39,930	0	0
N. pupula	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. radiosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. reinhardii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. salinarum var. *intermedia*	0	0	179,684	239,578	0	0	0	0	439,226	79,859	0	0	0	159,718	0	0
N. tripunctata	0	0	0	119,789	0	0	0	0	0	0	47,916	0	0	0	23,958	0
Navicula sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula sp. B	0	0	0	0	0	0	0	0	199,648	0	0	0	0	39,930	0	0

Table 15c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R5	R6	R7	R8	R3	R4	R1	R2	R9	R10	R11	R12	R13	R14	R15	R16
Neidium binode	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dubium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stauroneis anceps	0	0	119,789	0	0	0	0	0	0	0	0	0	0	0	0	0
S. phoenicenteron	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirellinees: *Cymatopleura solea*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epithemia sorex	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E. turgida	0	0	0	0	0	0	0	0	0	0	23,958	0	0	0	0	0
Nitzschia acicularis	0	0	0	119,789	0	0	0	0	79,859	0	0	0	0	0	0	0
N. amphibia	0	0	119,789	0	0	0	0	0	0	0	0	0	0	0	0	0
N. angustata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dissipata	0	0	2,036,413	718,734	0	23,958	0	0	319,437	0	71,873	0	0	239,578	71,873	0
N. frustulum	0	0	0	0	0	0	0	0	78,859	159,718	0	0	0	79,859	0	0
N. linearis	0	0	239,578	598,945	0	0	0	0	0	0	11,979	0	0	239,578	23,958	11,979
N. palea	0	47,916	598,945	898,418	0	47,916	0	47,916	1,437,466	1,477,395	0	0	0	1,517,325	0	47,916
Rhopalodia gibba	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirella angustata	0	0	239,578	0	0	0	0	23,958	119,789	79,859	0	0	0	0	0	23,958
S. biseriata	0	0	119,789	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ovata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 15d.

Periphytic diatom concentrations (cells cm^{-2}) from replicate rock subsamples collected from seven sites on September 11-12, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R 104	R 105	R 108	R 109	R 100	R 101	R 102	R 103	R 110	R 111	R 106	R 107	R 114	R 115	R 112	R 113
Bacillariophyceae Species																
Coscinodiscales:																
Cyclotella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilariales:																
Asterionella formosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoma hiemale	0	23,958	15,972	47,916	0	31,944	0	0	31,944	0	0	0	19,965	0	0	0
D. hiemale var. *mesodon*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D. vulgare	0	0	0	0	0	0	0	0	0	7,986	0	0	0	0	0	0
Fragilaria capucina	0	0	0	0	0	63,888	0	0	0	0	0	0	79,859	425,915	0	0
F. construens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens var. *binodis*	0	0	0	0	0	31,944	0	0	31,944	0	0	0	0	53,239	0	0
F. construens var. *venter*	0	55,901	0	0	0	0	0	0	0	0	0	0	359,366	0	0	0
F. leptostauron	0	0	0	31,944	0	0	0	0	0	0	0	0	39,930	0	0	0
F. producta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. vaucheriae	15,972	0	0	31,944	0	31,944	0	63,888	0	0	0	0	39,930	53,239	0	0
Hannaea arcus	15,972	31,944	0	303,466	15,972	63,888	0	0	95,831	0	0	15,972	139,754	346,056	55,901	0
H. arcus var. *amphioxys*	0	0	0	0	0	0	0	0	0	63,887	0	0	0	159,718	0	0
Meridion circulare	0	0	0	0	0	0	0	0	63,888	0	0	0	119,789	53,239	0	0
Synedra ulna	15,972	79,859	15,972	463,185	0	31,944	0	0	303,466	231,591	0	0	0	53,239	31,944	0
S. ulna var. *impressa*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ulna var. *oxyrhynchus*	0	0	0	0	0	0	7,986	0	0	0	0	0	39,930	106,479	0	0
Achnanthales:																
Achnanthes flexella	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A. lanceolata	47,915	0	15,972	143,747	31,944	0	0	0	319,436	15,972	15,972	15,972	0	266,197	0	0
A. lemmermanni	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 15c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R104	R105	R108	R109	R100	R101	R102	R103	R110	R111	R106	R107	R114	R115	R112	R113
A. minutissima	0	15,972	15,972	255,550	0	223,607	31,944	0	351,382	15,972	0	0	6,788,032	1,224,506	63,887	15,972
Achnanthes sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthes sp. B	0	15,972	0	0	0	0	0	0	143,747	0	0	0	0	319,436	0	0
Achnanthes sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis pediculus	0	0	0	31,944	399,295	287,494	0	0	0	0	0	0	0	0	0	0
C. placentula	95,831	15,972	31,944	207,635	47,915	351,382	0	23,958	862,483	55,901	15,972	23,958	179,683	612,253	127,774	39,930
Rhoicosphenia curvata	0	0	0	0	0	0	0	0	31,944	0	0	0	39,930	0	0	0
Naviculales:																
Amphipleura pellucida	0	15,972	0	0	23,958	127,775	0	0	0	0	0	7,986	0	0	0	0
Amphora ovalis	0	0	0	0	0	0	0	0	0	0	0	0	119,789	106,479	0	0
Cymbella affinis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. caespitosa	15,972	0	15,972	95,831	0	95,831	0	0	31,944	0	0	0	239,578	372,676	175,690	0
C. cistula	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. cymbiformis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. gracilis	0	15,972	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. prostrata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. sinuata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. turgida	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. ventricosa	0	47,915	0	255,550	23,958	31,944	0	0	319,438	15,972	0	47,915	598,944	372,676	15,972	0
Cymbella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diploneis ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Frustulia rhomboides	0	0	0	31,944	0	0	0	0	0	0	0	0	0	106,479	0	0
F. rhomboides var. *viridula*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema geminatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15,972	0

Table 15d. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R104	R105	R108	R109	R100	R101	R102	R103	R110	R111	R106	R107	R114	R115	R112	R113
G. herkidenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. herculeanum	0	31,944	0	47,916	15,972	95,831	0	0	175,691	0	0	0	0	0	0	0
G. intricatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. lanceolatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. olivaceum	55,901	135,760	31,944	191,663	0	415,269	15,972	0	622,904	15,972	0	0	499,120	452,535	79,859	0
G. parvulum	15,972	31,944	0	0	31,944	287,494	0	0	95,831	0	0	0	0	239,577	0	47,915
G. parvulum var. *genuinum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gyrosigma spencerii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula bicephala	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. cryptocephala	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. cuspidata	0	0	0	0	0	0	0	0	0	0	0	0	0	53,239	0	0
N. festiva	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. gottlandica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. minima	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. muralis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. pupula	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. radiosa	0	0	0	0	0	47,916	0	0	0	0	0	0	359,366	612,253	0	0
N. reinhardii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. salinarum var. *intermedia*	0	0	7,986	239,578	0	0	0	0	95,831	31,944	0	0	39,930	26,620	0	0
N. tripunctata	0	0	0	0	0	31,944	0	0	0	0	0	0	0	0	15,972	0
Navicula sp. A	0	0	0	0	15,972	0	0	0	0	0	0	0	39,930	106,479	0	0
Navicula sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 15c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R 104	R 105	R 108	R 109	R 100	R 101	R 102	R 103	R 110	R 111	R 106	R 107	R 114	R 115	R 112	R 113
Meidium bisale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dubium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stauroneis anceps	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. phoenicenteron	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirellinees:																
Cymatopleura solea	0	15,972	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epithemia sorex	0	0	0	0	0	31,944	0	0	0	0	0	0	0	0	0	0
E. turgida	0	0	15,972	0	0	95,831	0	0	79,860	0	0	7,986	0	0	0	0
Nitzschia acicularis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. amphibia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. angustata	0	0	0	31,944	0	0	0	0	0	0	0	0	658,838	0	0	0
N. dissipata	0	47,915	0	255,550	0	255,550	0	0	111,803	15,972	0	0	359,366	266,197	31,944	0
N. frustulum	15,972	0	0	31,944	0	95,831	0	0	0	0	0	0	798,592	106,479	0	0
N. linearis	0	15,972	0	15,972	0	0	0	0	15,972	0	0	0	39,930	212,958	0	0
N. palea	0	0	15,972	622,904	47,915	223,607	31,944	0	127,775	0	0	0	718,733	1,118,027	47,915	0
Rhopalodia gibba	0	0	0	0	0	0	0	0	0	0	0	0	59,894	0	0	0
Surirella angustata	0	0	0	0	0	0	0	0	0	0	0	0	0	53,239	0	0
S. biseriata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ovata	0	0	0	31,944	0	0	0	0	0	0	0	0	0	0	0	0

Table 16a.
Periphytic diatom densities (cells cm^{-2}) on replicate whole rocks collected from two sites on April 10-12, 1976.

Species	Station 1		Station 3	
	W104	W105	W110	W111
Bacillariophyceae Species				
Coscinodiscales:				
Cyclotella sp. A	0	0	0	0
Fragilariales:				
Asterionella formosa	0	0	0	0
Diatoma hiemale	0	0	0	0
D. hiemale var. *mesodon*	0	0	0	0
D. vulgare	0	2,891	3,900	0
Fragilaria capucina	0	0	0	0
F. construens	0	0	0	0
F. construens var. *binodis*	0	0	0	0
F. construens var. *venter*	0	0	0	0
F. leptostauron	0	0	0	0
F. producta	0	0	0	0
F. vaucheriae	0	0	0	0
Hannaea arcus	0	0	0	0
H. arcus var. *amphicyps*	0	0	0	1,560
Meridion circulare	0	0	0	0
Synedra ulna	0	826	390	390
S. ulna var. *impressa*	0	0	0	0
S. ulna var. *oxyrhynchus*	0	0	0	0
Achnanthales:				
Achnanthes flexella	0	0	0	0
A. lanceolata	0	0	780	1,560
A. lemmermanni	0	0	0	0

Table 16a. (Continued)

Species	Station 1		Station 3	
	W104	W105	W110	W111
A. minutissima	3,025	0	0	390
Achnanthes sp. A	0	0	0	0
Achnanthes sp. B	0	0	0	0
Achnanthes sp. C	0	0	0	0
Cocconeis pediculus	0	0	0	0
C. placentula	0	0	0	0
Rhoicosphenia curvata	0	0	1,560	0
Naviculales:				
Amphipleura pellucida	0	0	0	0
Amphora ovalis	0	0	780	0
Cymbella affinis	0	0	0	0
C. caespitosa	0	0	780	0
C. cistula	0	0	0	0
C. cymbiformis	0	0	0	0
C. gracilis	0	0	0	0
C. prostrata	0	0	0	0
C. sinuata	0	0	0	0
C. turgida	0	0	0	0
C. ventricosa	0	0	1,560	0
Cymbella sp. A	0	0	0	0
Diploneis ovalis	0	0	0	0
Frustulia rhomboides	0	0	0	0
F. rhomboides var. *viridula*	0	0	0	0
Gomphonema geminatum	0	0	0	0

Table 16a. (Continued)

Species	Station 1		Station 3	
	W104	W105	W110	W111
G. hebridenses	0	0	0	0
G. herculeanum	0	0	0	0
G. intricatum	0	0	0	0
G. lanceolatum	0	0	0	0
G. olivaceum	0	413	780	1,170
G. parvulum	0	0	0	0
G. parvulum var. *genuinum*	0	0	0	0
Gomphonema sp. A	0	0	0	0
Gyrosigma spencerii	0	0	0	0
Navicula bicephala	0	0	0	0
N. cryptocephala	0	0	0	0
N. cuspidata	0	0	0	0
N. festiva	0	0	0	0
N. gottlandica	0	0	0	0
N. minima	0	0	0	0
N. muralis	0	0	0	0
N. pupula	0	0	0	0
N. radiosa	0	0	0	0
N. reinhardii	0	0	0	0
N. salinarum var. *intermedia*	0	826	0	0
N. tripunctata	0	0	1,560	0
Navicula sp. A	0	0	0	0
Navicula sp. B	0	0	0	0

Table 16a. (Continued)

Species	Station 1		Station 3	
	W104	W105	W110	W111
Neidium binode	0	0	0	0
N. dubium	0	0	0	0
Stauroneis anceps	0	0	0	0
S. phoenicenteron	0	0	0	0
Surirellinees:				
Cymatopleura solea	0	0	0	0
Epithemia sorex	0	0	0	0
E. turgida	0	0	0	0
Nitzschia acicularis	0	0	0	0
N. amphibia	0	0	0	0
N. angustata	0	0	0	0
N. dissipata	0	0	0	0
N. frustulum	0	0	0	0
N. linearis	0	0	0	0
N. palea	0	0	780	0
Rhopalodia gibba	0	0	0	0
Surirella angustata	0	0	0	0
S. biseriata	0	0	0	0
S. ovata	0	0	0	0

Table 16b.

Periphytic diatom densities (cells cm^{-2}) on replicate whole rocks collected from seven sites on August 4-5, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	W5	W6	W7	W8	W3	W4	W1	W2	W9	W10	W11	W12	W13	W14
Bacillariophyceae Species														
Coscinodiscales:														
Cyclotella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilariales:														
Asterionella formosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoma hiemale	0	3,890	19,965	41,194	0	0	0	5,104	13,507	7,283	12,551	25,900	19,019	0
D. hiemale var. *mesodon*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D. vulgare	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilaria capucina	0	0	0	20,597	0	0	0	0	0	0	0	0	0	0
F. construens	0	0	0	0	0	0	0	0	0	21,849	0	0	0	0
F. construens var. *binodis*	0	0	0	0	0	1,068	656	0	0	0	8,368	0	0	32,905
F. construens var. *venter*	0	0	73,204	30,895	0	0	1,312	0	0	0	158,984	32,375	0	0
F. leptostauron	0	0	0	0	708	1,068	0	0	0	7,283	0	0	0	0
F. producta	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. vaucheriae	0	4,669	0	20,597	0	2,137	0	10,209	40,522	0	8,368	0	0	0
Hannaea arcus	0	0	166,372	190,520	14,158	8,013	1,969	33,179	121,565	29,132	92,044	48,562	110,946	63,068
H. arcus var. *amphioxys*	0	15,562	0	0	0	0	0	0	0	0	0	0	6,340	0
Meridion circulare	0	0	0	10,298	0	1,068	0	0	40,522	7,283	16,735	6,475	0	0
Synedra ulna	0	3,890	346,055	375,892	8,849	8,547	0	12,761	81,043	29,132	41,838	32,375	3,170	0
S. ulna var. *impressa*	0	0	0	0	0	1,068	0	0	0	0	0	0	0	0
S. ulna var. *oxyrhynchus*	0	0	0	0	3,186	5,876	0	0	0	0	0	0	0	0
Achnanthales:														
Achnanthes flexella	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A. lanceolata	0	7,781	26,620	41,194	354	3,739	0	7,657	40,522	10,924	8,368	12,950	15,850	19,195
A. lemmermanni	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 16b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	#5	#6	#7	#8	#3	#4	#1	#2	#9	#10	#11	#12	#13	#14
A. minutissima	0	1,556	46,584	102,984	1,062	6,410	0	182,482	101,304	61,906	380,726	42,088	60,228	213,884
Achnanthes sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthes sp. B	0	1,556	0	0	0	0	0	0	13,507	0	58,573	6,475	0	0
Achnanthes sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis pediculus	0	0	0	0	708	0	0	0	0	0	0	0	0	0
C. placentula	1,809	5,447	26,620	41,194	2,832	9,081	984	5,104	121,565	50,981	4,184	0	12,680	13,710
Rhoicosphenia curvata	0	0	0	0	0	0	0	0	0	14,566	0	0	0	0
Naviculales:														
Amphipleura pellucida	0	1,556	0	5,149	0	0	0	0	0	0	0	12,950	0	0
Amphora ovalis	0	0	0	0	0	0	0	0	13,507	0	0	0	0	0
Cymbella affinis	0	0	0	10,298	0	0	0	17,865	0	0	0	0	0	0
C. caespitosa	1,206	10,893	179,682	92,686	9,911	16,026	1,312	195,243	128,318	80,113	280,315	119,788	50,718	71,295
C. cistula	0	0	0	0	0	0	0	10,209	0	0	0	0	0	0
C. cymbiformis	0	0	0	0	0	0	0	0	0	14,566	0	0	0	0
C. gracilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. prostrata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. sinuata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. turgida	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. ventricosa	0	1,556	26,620	113,282	0	1,068	0	12,761	67,536	14,566	50,206	12,950	0	27,421
Cymbella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diploneis ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Frustulia rhomboides	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. rhomboides var. *viridula*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema geminatum	0	0	0	10,298	0	0	984	20,418	20,261	7,283	8,368	0	0	5,484

Table 16b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	W5	W6	W7	W8	W3	W4	W1	W2	W9	W10	W11	W12	W13	W14
G. hebridenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. herculearum	0	0	26,620	0	0	0	0	0	40,522	7,283	0	0	0	0
G. intricatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. lanceolatum	0	1,556	0	0	0	0	0	0	0	0	25,103	0	0	0
G. olivaceum	0	14,006	146,408	97,835	8,849	38,997	0	20,418	222,869	203,924	125,514	12,950	69,738	87,747
G. parvulum	3,014	0	0	5,149	0	0	656	10,209	27,014	40,056	167,352	74,462	41,209	120,652
G. parvulum var. *genuinum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gyrosigma spencerii	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula bicephala	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. cryptocephala	0	0	0	0	0	2,137	0	0	0	0	0	0	0	0
N. cuspidata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. festiva	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. gottlandica	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. minima	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. muralis	0	0	0	0	0	0	0	0	13,507	0	25,103	0	0	0
N. pupula	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. radiosa	0	0	19,965	56,641	354	1,068	0	0	47,275	21,849	50,206	12,950	0	5,484
N. reinhardii	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. salinarum var. *intermedia*	0	0	0	20,597	0	4,274	0	0	0	0	4,184	0	12,680	10,968
N. tripunctata	0	0	0	0	0	0	0	0	0	0	0	0	12,680	0
Navicula sp. A	0	0	0	0	0	0	0	10,209	0	21,849	0	0	0	5,484
Navicula sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 16b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	#5	#6	#7	#8	#3	#4	#1	#2	#9	#10	#11	#12	#13	#14
Neidium binode	0	0	13,310	0	0	0	0	0	0	0	0	0	0	0
N. dubium	0	0	0	10,298	0	0	0	0	0	0	0	0	0	0
Stauroneis anceps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. phoenicenteron	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirellineae:														
Cymatopleura solea	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epithemia sorex	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E. turgida	0	0	0	0	3,540	2,137	0	0	0	0	0	0	0	0
Nitzschia acicularis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. amphibia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. angustata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dissipata	0	3,112	93,169	72,089	1,416	9,616	0	0	67,536	7,283	100,411	38,850	0	65,810
N. frustulum	0	0	13,310	20,597	0	0	0	2552	0	21,849	58,573	0	6,340	0
N. linearis	0	1,556	39,929	10,298	0	0	0	0	13,507	10,924	0	0	57,058	10,968
N. palea	0	0	79,859	87,536	3,540	8,013	0	7,657	189,101	91,038	217,558	32,375	76,078	126,137
Rhopalodia gibba	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirella angustata	0	0	26,620	0	0	0	0	0	13,507	0	8,368	0	0	0
S. biseriata	0	0	13,310	0	0	0	0	0	0	0	0	0	0	0
S. ovata	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 16c.

Periphytic diatom densities (cells cm^{-2}) on replicate whole rocks collected from eight sites on September 11-12, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	W104	W105	W108	W109	W100	W101	W102	W103	W110	W111	W106	W107	W114	W115	W112	W113
Bacillariophyceae Species																
Coscinodiscales:																
Cyclotella sp. A	1,904	19,103	0	34,225	0	8,582	0	0	0	0	0	0	11,408	0	2,178	0
Fragilariales:																
Asterionella formosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoma hiemale	1,904	0	13,920	17,112	0	0	0	0	0	0	4,870	1,608	0	0	0	2,163
D. hiemale var. *mesodon*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D. vulgare	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilaria capucina	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens var. *binodis*	0	0	0	0	0	0	0	5,931	19,126	0	0	0	28,521	0	0	0
F. construens var. *venter*	0	0	18,561	17,112	0	0	0	0	19,126	0	4,870	0	0	4,863	0	0
F. leptostauron	0	0	0	0	0	0	0	0	0	0	0	0	5,704	0	0	0
F. producta	0	0	0	0	0	0	0	0	0	0	0	0	0	9,726	0	0
F. vaucheriae	3,809	0	4,640	0	0	3,433	0	0	31,876	12,931	1,218	0	5,704	14,589	0	0
Hannaea arcus	1,904	8,187	32,481	85,562	1,151	0	0	0	44,626	3,233	7,914	0	54,190	19,453	4,356	0
H. arcus var. *amphioxys*	0	0	0	0	0	0	0	0	0	2,155	0	804	0	26,748	0	16,226
Meridion circulare	0	0	0	34,225	0	0	0	0	0	0	3,044	0	0	0	0	0
Synedra ulna	9,522	15,010	39,441	89,840	6,907	17,164	0	0	19,126	25,862	4,262	2,413	54,190	38,906	0	2,163
S. ulna var. *impressa*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ulna var. *oxyrhynchus*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthales:																
Achnanthes flexella	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A. lanceolata	952	5,458	30,161	34,225	8,058	3,433	0	5,931	54,189	3,233	2,435	804	17,113	12,158	22,867	23,797
A. lemenmanni	0	0	0	0	0	0	0	0	0	0	0	0	2,852	0	0	0

Table 16c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	#104	#105	#108	#109	#100	#101	#102	#103	#110	#111	#106	#107	#114	#115	#112	#113
A. minutissima	36,184	16,374	116,004	94,118	4,605	24,030	2,268	136,408	66,940	16,164	21,917	10,455	88,415	148,328	26,134	29,206
Achnanthes sp. A	0	4,094	6,960	0	0	0	0	0	0	1,078	3,044	804	8,556	0	0	0
Achnanthes sp. B	0	0	0	0	0	0	0	0	0	2,155	0	0	5,704	7,295	0	2,163
Achnanthes sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis pediculus	0	0	0	0	8,058	58,358	0	0	0	0	3,653	0	0	0	0	0
C. placentula	20,948	9,552	88,163	81,284	36,263	68,656	4,915	1,483	127,504	39,871	32,266	2,011	31,373	65,653	22,867	14,062
Rhoicosphenia curvata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,163
Naviculales:																
Amphipleura pellucida	1,904	0	6,960	4,278	1,151	3,433	0	0	6,375	1,078	0	0	11,408	7,295	0	0
Amphora ovalis	0	0	0	0	0	0	0	0	6,375	0	0	0	0	0	0	0
Cymbella affinis	1,904	0	4,640	0	0	0	0	0	0	0	1,218	0	0	0	0	2,163
C. caespitosa	19,044	21,832	53,362	47,059	4,605	10,298	1,512	44,481	19,126	15,086	0	0	82,711	53,495	26,134	15,144
C. cistula	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. cymbiformis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. gracilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. prostrata	0	0	0	0	0	0	0	0	0	0	0	0	5,704	4,863	0	0
C. sinuata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. turgida	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. ventricosa	1,904	13,645	37,121	59,893	0	0	756	23,723	70,127	8,621	19,482	4,825	11,408	19,453	8,711	2,163
Cymbella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diploneis ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Frustulia rhomboides	0	0	9,280	0	0	0	0	0	0	0	0	0	0	0	2,178	0
F. rhomboides var. *viridula*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,163
Gomphonema geminatum	0	0	0	0	0	0	0	69,687	0	2,155	0	0	0	0	4,356	0

Table 16c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	W104	W105	W108	W109	W100	W101	W102	W103	W110	W111	W106	W107	W114	W115	W112	W113
G. hebridenses	0	0	0	0	0	0	0	0	0	0	0	0	11,408	0	0	0
G. herculeanum	1,904	0	13,920	8,556	0	0	0	0	6,375	8,621	0	0	48,486	24,316	2,178	0
G. intricatum	0	0	0	0	0	3433	0	0	0	0	0	0	0	0	0	0
G. lanceolatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. olivaceum	42,849	94,150	48,721	145,455	17,268	41,194	1,512	2,965	149,817	34,483	9,132	0	94,119	53,495	37,023	35,696
G. parvulum	0	4,094	0	17,112	0	0	0	0	12,750	0	2,435	0	91,267	17,021	14,156	25,961
G. parvulum var. *genuinum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gyrosigma spencerii	0	0	0	8,556	0	0	0	0	0	0	0	0	0	0	0	0
Navicula biocephala	0	0	0	0	0	0	0	13,344	6,375	0	2,435	0	0	0	0	0
N. cryptocephala	0	0	46,401	42,781	1,151	0	0	0	31,876	0	4,262	1,206	0	19,453	4,356	0
N. cuspidata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. festiva	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. gottlandica	0	0	0	0	2,302	0	0	0	0	0	0	0	0	0	0	0
N. minima	0	0	20,881	0	0	0	0	0	0	0	1,218	804	0	0	0	0
N. muralis	0	2,729	0	4,278	576	3,433	0	0	6,375	0	0	0	11,408	4,863	0	0
N. pupula	0	2,729	0	0	1,151	0	0	0	0	0	0	0	0	0	0	0
N. radiosa	0	0	0	0	0	0	0	0	6,375	0	0	0	0	0	0	0
N. reinhardii	0	0	4,640	0	0	0	0	0	0	0	0	0	0	4,863	2,178	0
N. salinarum var. *intermedia*	4,761	4,094	0	0	0	6,866	0	1,483	0	0	0	0	22,817	0	4,356	2,163
N. tripunctata	0	0	9,280	0	0	6,866	0	0	0	0	6,088	1,608	0	0	0	2,163
Navicula sp. A	0	0	0	8,556	0	0	0	0	0	0	0	0	0	0	0	0
Navicula sp. B	0	0	4,640	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 16c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	W104	W105	W108	W109	W100	W101	W102	W103	W110	W111	W106	W107	W114	W115	W112	W113
Meidium binode	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dubium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stauroneis anceps	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. phoenicenteron	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirellinees:	0	0	0	0	0	0	0	0	3,186	0	0	0	0	0	0	0
Cymatopleura solea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epithemia sorex	0	0	0	0	0	10,298	0	0	0	0	0	0	0	0	0	0
E. turgida	0	0	4,640	0	3,454	17,164	0	0	6,375	15,086	0	0	0	0	0	0
Nitzschia acicularis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. amphibia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. angustata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dissipata	0	10,916	92,803	77,006	1,727	25,746	0	0	38,251	19,397	2,435	804	62,746	89,969	30,489	15,144
N. frustulum	0	0	4,640	0	0	13,731	0	0	6,375	4,310	0	0	0	17,021	6,533	0
N. linearis	0	2,729	13,920	102,674	2,302	3,433	0	0	12,750	0	2,435	804	25,669	7,295	13,067	8,654
N. palea	7,618	15,010	55,682	85,562	6,907	46,343	0	0	70,127	15,086	15,220	2,413	48,486	34,042	2,178	8,654
Rhopalodia gibba	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirella angustata	0	2,729	0	17,112	0	0	0	0	0	0	0	0	0	0	0	0
S. biseriata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ovata	0	0	0	0	0	0	0	2,965	0	0	0	0	0	0	0	0

Table 16d.

Periphytic diatom densities (cells cm^{-2}) on replicate whole rocks collected from the Flathead River on August 26, 1980.

Species	Station 3	
	Rock F1	Rock F2
Coscinodiscales:		
Cyclotella glomerata	184	0
Eunotiales		
Eunotia sp.	0	79
Fragilariales:		
Asterionella formosa	0	0
Diatoma elongatum	0	0
D. hiemale	92	0
D. hiemale var. *mesodon*	0	0
D. vulgare	0	0
Fragilaria capucina	0	0
F. construens	0	0
F. construens var. *binodis*	0	0
F. construens var. *venter*	0	79
F. crotonensis	0	0
F. heidenii	0	0
F. leptostauron	92	0
F. pinnata	0	0
F. producta	0	0
F. vaucheriae	276	629
Hannaea arcus	0	79
H. arcus var. *amphioxys*	0	0

Table 16d. (Continued)

Species	Station 3	
	Rock F1	Rock F2
Meridion circulare	0	0
Synedra acus var. *radians*	0	0
S. ulna	92	0
S. ulna var. *impressa*	0	0
S. ulna var. *oxyrhynchus*	184	236
S. ulna var. *oxyrhynchus* f. *contracta*	0	0
Tabellaria flocculosa	138	0
Achnanthales:		
Achnanthes flexella	0	0
A. lanceolata	92	157
A. lemmermanni	0	0
A. minutissima	1334	2987
Achnanthes sp.	276	393
Cocconeis pediculus	460	707
C. placentula	5704	3930
Rhoicosphenia curvata	92	0
Naviculales:		
Amphipleura pellucida	92	0
Amphora ovalis	0	0
Anomoeneis exilis	0	79
Cymbella affinis	0	0
C. caespitosa	138	354
C. cistula	0	0
C. cymbiformis	0	0
C. gracilis	0	0

Table 16d. (Continued)

Species	Station 3	
	Rock F1	Rock F2
C. prostrata	0	0
C. sinuata	92	236
C. turgida	0	0
C. ventricosa	276	157
Cymbella sp. A	0	0
Diploneis ovalis	0	0
Frustulia rhomboides	0	0
F. rhomboides var. *viridula*	0	0
Gomphonema geminatum	0	0
G. hebridenses	0	0
G. herculeanum	0	0
G. intricatum	0	0
G. lanceolatum	0	0
G. olivaceoides	0	0
G. olivaceum	2162	1415
G. parvulum	0	0
G. parvulum var. *genuinum*	0	0
Gomphonema sp. A	0	0
Gyrosigma spencerii	0	0
Navicula arvensis	0	0
N. bicephala	0	0
N. capitata var. *hungarica*	0	0
N. cryptocephala	0	0
N. cuspidata	0	0

Table 16d. (Continued)

Species	Station 3	
	Rock F1	Rock F2
N. festiva	0	0
N. gottlandica	0	0
N. minima	0	0
N. muralis	0	0
N. pelliculosa	0	0
N. pupula	0	0
N. radiosa	276	0
N. reinhardii	0	0
N. salinarum var. *intermedia*	0	157
N. tripunctata	0	0
N. viridula	0	0
Navicula sp.	782	472
Neidium binode	0	0
N. dubium	0	0
Neidium sp.	0	79
Stauroneis anceps	0	0
S. phoenicenteron	0	0
Surirellinees:		
Cymatopleura solea	0	0
Denticula elegans	92	0
Epithemia sorex	276	236
E. turgida	782	236
Nitzschia acicularis	92	0
N. actinastroides	0	0
N. amphibia	0	0

Table 16d. (Continued)

Species	Station 3	
	Rock F1	Rock F2
N. angustata	0	0
N. dissipata	92	550
N. frustulum	92	157
N. linearis	0	0
N. palea	276	472
Rhopalodia gibba	92	79
Surirella angustata	0	0
S. biseriata	0	0
S. ovata	0	0
Total Count	14628	13952

Table 16e.

Periphytic diatom densities (cells cm^{-2}) on replicate whole rocks collected from two sites on July 28, 1982.

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
Coscinodiscales:						
Cyclotella glomerata	0	0	0	0	0	0
Eunotiales						
Eunotia sp.	0	0	0	0	0	0
Fragilariales:						
Asterionella formosa	0	0	0	0	0	0
Diatoma elongatum	0	0	106	0	156	144
D. hiemale	0	0	318	0	0	0
D. hiemale var. *mesodon*	730	172	318	0	0	0
D. vulgare	0	0	0	0	0	0
Fragilaria capucina	0	0	0	0	0	0
F. construens	0	0	0	0	0	0
F. construens var. *binodis*	0	0	0	0	0	0
F. construens var. *venter*	0	0	0	0	0	0
F. crotonensis	0	0	0	15	0	0
F. heidenii	0	29	0	0	0	0
F. leptostauron	0	57	53	0	0	0
F. pinnata	0	0	53	0	0	0
F. producta	0	0	0	0	0	0
F. vaucheriae	292	29	106	0	0	0
Hannaea arcus	876	431	636	76	0	0
H. arcus var. *amphioxys*	146	57	159	0	0	0

Table 16e. (Continued)

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
Meridion circulare	584	144	159	91	0	0
Synedra acus var. *radians*	0	0	106	0	52	0
S. ulna	5112	1753	2438	91	208	397
S. ulna var. *impressa*	0	0	0	0	0	0
S. ulna var. *oxyrhynchus*	0	460	530	0	0	72
S. ulna var. *oxyrhynchus* f. *contracta*	0	0	0	0	0	0
Tabellaria flocculosa	0	0	0	0	0	0
Achnanthales:						
Achnanthes flexella	0	0	0	0	0	0
A. lanceolata	1607	201	318	30	208	180
A. lemmermanni	0	0	0	0	0	0
A. minutissima	2629	632	742	530	6071	1443
Achnanthes sp.	0	0	0	0	0	0
Cocconeis pediculus	0	0	0	0	0	0
C. placentula	584	29	106	606	259	1479
Rhoicosphenia curvata	292	57	0	0	0	0
Naviculales:						
Amphipleura pellucida	0	0	0	0	0	0
Amphora ovalis	292	0	0	0	0	0
Anomoeneis exilis	0	0	0	0	0	0
Cymbella affinis	8033	1092	3285	30	0	36
C. caespitosa	0	0	0	0	0	0
C. cistula	146	0	0	0	0	0
C. cymbiformis	0	0	0	0	0	0
C. gracilis	0	0	0	0	0	0

Table 16e. (Continued)

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
C. prostrata	0	0	0	0	0	0
C. sinuata	2337	919	742	818	1868	1984
C. turgida	0	0	0	0	0	216
C. ventricosa	876	144	742	45	52	216
Cymbella sp. A	0	0	0	0	0	0
Diploneis ovalis	0	0	0	0	0	0
Frustulia rhomboides	0	0	0	0	0	0
F. rhomboides var. *viridula*	0	0	0	0	0	0
Gomphonema geminatum	0	0	0	0	0	0
G. hebridenses	0	0	0	0	0	0
G. herculeanum	0	0	53	0	0	0
G. intricatum	4089	517	1113	0	0	0
G. lanceolatum	0	0	0	0	0	0
G. olivaceoides	0	86	106	0	0	0
G. olivaceum	14605	2873	5405	1848	6746	4510
G. parvulum	146	57	0	0	0	0
G. parvulum var. *genuinum*	0	0	0	0	0	0
Gomphonema sp. A	0	0	0	0	0	0
Gyrosigma spencerii	0	0	0	0	0	0
Navicula arvensis	0	0	0	45	104	72
N. bicephala	0	29	0	0	52	0
N. capitata var. *hungarica*	0	0	0	0	52	36
N. cryptocephala	0	0	0	0	0	0
N. cuspidata	0	0	0	0	0	0

Table 16e. (Continued)

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
N. festiva	0	0	0	0	0	0
N. gottlandica	0	0	0	0	0	0
N. minima	0	0	0	0	0	0
N. muralis	0	0	0	0	0	0
N. pelliculosa	0	0	0	30	415	108
N. pupula	0	0	0	0	0	0
N. radiosa	0	0	0	0	0	0
N. reinhardii	0	0	0	0	0	0
N. salinarum var. *intermedia*	1753	259	265	121	363	361
N. tripunctata	0	0	53	0	0	0
N. viridula	0	0	0	0	52	0
Navicula sp.	1022	0	53	30	52	180
Neidium binode	0	0	0	0	0	0
N. dubium	0	0	0	0	0	0
Neidium sp.	0	0	0	0	0	0
Stauroneis anceps	0	0	0	0	0	0
S. phoenicenteron	0	0	0	0	0	0
Surirellinees:						
Cymatopleura solea	0	0	0	0	0	0
Denticula elegans	92	0	0	0	0	0
Epithemia sorex	0	0	0	15	0	0
E. turgida	0	0	0	0	0	72
Nitzschia acicularis	0	0	0	15	0	36
N. actinastroides	0	0	0	0	0	144
N. amphibia	0	0	0	0	0	0

Table 16e. (Continued)

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
N. angustata	0	0	0	0	0	0
N. dissipata	438	259	795	106	104	289
N. frustulum	0	0	0	0	0	0
N. linearis	0	0	0	0	0	0
N. palea	2775	287	371	152	156	180
Rhopalodia gibba	0	0	0	0	0	0
Surirella angustata	0	0	53	30	0	0
S. biseriata	0	0	0	0	0	0
S. ovata	0	29	106	30	0	0
Total Count	49365	10601	19288	4757	16968	12159

Table 17a.

Periphytic diatom densities (cells cm^{-2}) on replicate plexiglass plates collected from five sites on August 4-5, 1976.

Species	Station 1		Station 2		Station 4		Station 7		Station 9	
	P3	P4	P5	P6	P1	P2	P7	P8	P9	P10
Bacillariophyceae Species										
Coscinodiscales:										
Cyclotella sp. A	0	0	0	0	0	0	0	0	0	0
Fragilariales:										
Asterionella formosa	0	0	0	0	0	0	0	0	0	0
Diatoma hiemale	0	0	202	497	248	0	3,973	2,483	4,046	7,283
D. hiemale var. *mesodon*	0	0	0	0	0	0	0	0	0	0
D. vulgare	202	0	0	0	0	0	0	0	0	0
Fragilaria capucina	0	0	0	0	0	0	0	0	0	0
F. construens	0	0	0	0	0	0	0	0	0	0
F. construens var. *binodis*	0	0	0	0	0	0	0	0	0	0
F. construens var. *venter*	0	0	0	0	0	0	1,986	0	0	2,428
F. leptostauron	0	0	0	497	0	0	0	0	0	0
F. producta	0	0	0	0	0	0	0	0	0	0
F. vaucheriae	0	0	0	0	1,242	993	993	0	0	10,924
Hannaea arcus	708	2980	910	2,438	9,435	6,704	23,837	64,563	112,074	503,727
H. arcus var. *amphioxys*	0	0	0	0	0	0	0	0	0	0
Meridion circulare	0	0	0	497	0	0	993	9,933	0	0
Synedra ulna	202	0	3,842	4,966	0	248	11,918	40,973	33,177	29,131
S. ulna var. *impressa*	0	0	0	0	0	0	0	0	0	0
S. ulna var. *oxyrhynchus*	0	0	0	0	0	0	0	0	0	0
Achnanthales:										
Achnanthes flexella	0	0	0	0	0	0	0	0	0	0
A. lanceolata	0	3,973	0	0	497	0	0	0	2,428	14,566
A. lemmermanni	0	0	0	0	0	0	0	0	0	0

Table 17a. (Continued)

Species	Station 1		Station 2		Station 4		Station 7		Station 9	
	P3	P4	P5	P6	P1	P2	P7	P8	P9	P10
A. minutissima	708	5,959	0	745	7,697	4,966	27,313	37,248	23,062	100,745
Achnanthes sp. A	0	0	0	0	0	0	0	0	0	0
Achnanthes sp. B	0	0	0	0	0	0	0	0	0	0
Achnanthes sp. C	0	0	0	0	0	0	0	0	0	0
Cocconeis pediculus	0	0	0	0	0	0	0	0	0	0
C. placentula	6,167	10,925	0	0	993	248	2,483	3,725	2,428	9,710
Rhoicosphenia curvata	0	0	0	0	0	0	0	0	0	0
Naviculales:										
Amphipleura pellucida	0	0	0	0	0	0	0	0	0	0
Amphora ovalis	0	0	0	0	0	0	0	0	0	0
Cymbella affinis	0	0	0	0	0	0	0	0	0	0
C. caespitosa	404	993	0	497	3,476	1,490	9,932	48,422	809	12,138
C. cistula	0	0	0	0	0	0	0	2,483	0	0
C. cymbiformis	0	0	0	0	0	0	0	0	0	0
C. gracilis	0	0	0	0	0	0	0	0	0	0
C. prostrata	0	0	0	0	0	0	0	0	0	0
C. sinuata	0	0	0	0	0	0	0	0	0	0
C. turgida	0	0	0	497	993	0	1,986	0	0	0
C. ventricosa	202	0	0	993	4,221	3,476	4,966	4,966	4,855	4,855
Cymbella sp. A	0	0	0	0	0	0	0	0	0	0
Diploneis ovalis	0	0	0	0	0	0	0	0	0	0
Frustulia rhomboides	0	0	0	0	0	0	0	0	0	0
F. rhomboides var. *viridula*	0	0	0	0	0	0	0	0	0	0
Gomphonema geminatum	0	0	0	0	0	497	1,490	0	0	0

Table 17a. (Continued)

Species	Station 1		Station 2		Station 4		Station 7		Station 9	
	P3	P4	P5	P6	P1	P2	P7	P8	P9	P10
G. hebridenses	0	0	0	0	0	0	0	0	0	0
G. herculeanum	202	0	0	0	0	0	0	4,966	0	4,855
G. intricatum	0	0	0	0	0	0	0	0	0	0
G. lanceolatum	0	0	0	0	0	0	0	0	0	0
G. olivaceum	202	0	0	0	497	0	993	2,483	0	13,352
G. parvulum	5,965	21,354	607	2,980	12,167	12,663	4,469	34,765	33,177	151,725
G. parvulum var. *genuinum*	0	0	0	0	0	0	0	0	0	0
Gomphonema sp. A	0	0	0	0	0	0	0	0	0	0
Gyrosigma spencerii	0	0	0	0	0	0	0	0	0	0
Navicula bicephala	0	0	0	0	0	0	0	0	0	0
N. cryptocephala	0	0	0	0	0	0	0	0	0	0
N. cuspidata	0	0	0	0	0	0	0	0	0	0
N. festiva	0	0	0	0	0	0	0	0	0	0
N. gottlandica	0	0	0	0	0	0	0	0	0	0
N. minima	0	0	0	0	0	0	0	0	0	0
N. muralis	0	0	0	0	0	0	4,966	2,483	1,214	0
N. pupula	0	0	0	0	0	0	993	0	0	0
N. radiosa	0	0	0	0	0	0	0	0	0	0
N. reinhardii	0	0	0	0	0	0	0	0	0	0
N. salinarum var. *intermedia*	0	0	0	248	0	0	2,980	9,933	0	0
N. tripunctata	0	0	0	0	0	0	0	0	0	0
Navicula sp. A	0	0	0	0	0	0	0	0	1,214	0
Navicula sp. B	0	993	0	0	0	0	0	0	0	0

Table 17a. (Continued)

Species	Station 1		Station 2		Station 4		Station 7		Station 9	
	P3	P4	P5	P6	P1	P2	P7	P8	P9	P10
Neidium binode	0	0	0	0	0	0	0	0	0	0
N. dubium	0	0	0	0	0	0	0	0	0	0
Stauroneis anceps	0	0	0	0	0	0	0	0	0	0
S. phoenicenteron	0	0	0	0	0	0	0	0	0	0
Surirellinees:										
Cymatopleura solea	0	0	0	0	0	0	0	0	0	0
Epithemia sorex	0	0	0	0	0	0	0	0	0	0
E. turgida	0	0	0	0	0	0	0	0	0	0
Nitzschia acicularis	0	0	0	0	0	0	993	0	0	0
N. amphibia	0	0	0	0	0	0	0	0	0	0
N. angustata	0	0	0	0	0	0	0	0	0	0
N. dissipata	0	0	0	0	0	0	6,456	2,483	0	0
N. frustulum	0	0	0	0	0	0	993	0	1,618	0
N. linearis	0	0	0	497	0	0	993	0	0	0
N. palea	809	993	0	497	993	497	18,871	89,395	23,062	16,993
Rhopalodia gibba	0	0	0	0	0	0	0	0	0	0
Surirella angustata	0	0	0	0	0	0	0	0	0	0
S. biseriata	0	0	0	0	0	0	0	0	0	0
S. ovata	0	0	0	0	0	0	0	0	0	0

Table 17h.

Periphytic diatom densities (cells cm^{-2}) on replicate plexiglass plates collected from seven sites on September 11-12, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	P104	P105	P108	P109	P100	P101	P102	P103	P110	P111	P114	P115	P112	P113
Bacillariophyceae Species														
Coscinodiscales:														
Cyclotella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilariales:														
Asterionella formosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoma hiemale	0	0	0	0	0	0	0	809	0	0	809	0	8,092	0
D. hiemale var. *mesodon*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D. vulgare	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilaria capucina	0	0	0	0	0	0	0	0	0	0	0	0	4,855	0
F. construens	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens var. *binodis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens var. *venter*	3,237	0	0	0	0	0	0	0	0	0	0	0	0	0
F. leptostauron	0	0	0	0	0	0	0	0	0	0	0	809	0	0
F. producta	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. vaucheriae	4,855	0	0	0	1,618	0	0	0	809	809	0	0	3,237	0
Hannaea arcus	7,283	0	0	809	0	0	0	0	4,046	0	0	20,635	11,329	0
H. arcus var. *amphioxys*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meridion circulare	0	0	0	0	0	0	0	0	0	0	1,214	0	4,046	0
Synedra ulna	5,664	809	0	1,214	809	0	405	0	0	2,832	809	7,687	1,618	0
S. ulna var. *impressa*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ulna var. *oxyrhynchus*	0	0	0	0	0	1,618	0	0	5,664	0	0	2,428	0	0
Achnanthales:														
Achnanthes flexella	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A. lanceolata	7,283	809	0	0	809	809	0	1,618	3,237	6,878	1,214	2,428	13,756	4,855
A. lemmermanni	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 17b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	P104	P105	P108	P109	P100	P101	P102	P103	P110	P111	P114	P115	P112	P113
A. minutissima	38,842	0	0	405	2,023	0	0	9,306	809	4,451	809	41,674	266,227	0
Achnanthes sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthes sp. B	3,237	0	0	0	0	0	0	0	809	0	0	809	0	0
Achnanthes sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis pediculus	0	0	0	0	4,046	809	0	0	0	0	0	0	0	0
C. placentula	223,339	78,492	0	1,618	37,223	65,141	1,214	8,497	25,490	91,844	103,173	4,451	77,683	122,189
Rhoicosphenia curvata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naviculales:														
Amphipleura pellucida	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Amphora ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cymbella affinis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. caespitosa	4,046	0	0	0	809	0	0	4,046	809	809	809	3,237	4,046	0
C. cistula	809	0	0	0	0	0	0	0	0	0	0	0	0	0
C. cymbiformis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. gracilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. prostrata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. sinuata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. turgida	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. ventricosa	0	0	0	0	0	0	0	2,428	0	0	809	0	4,855	1,618
Cymbella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diploneis ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Frustulia rhomboides	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. rhomboides var. *viridula*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema geminatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 17b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	P104	P105	P108	P109	P100	P101	P102	P103	P110	P111	P114	P115	P112	P113
G. hebridenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. herculeanum	0	0	0	0	0	0	0	0	809	0	809	809	1,618	0
G. intricatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. lanceolatum	0	0	0	0	0	0	0	809	0	0	0	0	0	0
G. olivaceum	93,058	809	0	2,428	4,046	1,618	8,092	6,878	9,306	26,704	0	809	167,504	10,520
G. parvulum	33,986	0	0	0	0	0	0	809	20,635	14,161	3,237	4,451	146,465	0
G. parvulum var. *ganuinum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gyrosigma spencerii	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula bicephala	0	0	0	0	0	0	0	0	0	0	405	809	0	0
N. cryptocephala	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. cuspidata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. festiva	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. gottlandica	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. minima	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. muralis	809	0	0	0	0	0	0	809	405	0	0	405	0	0
N. pupula	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. radiosa	0	0	0	0	0	0	0	0	0	0	809	0	0	0
N. reinhardii	0	0	0	0	0	0	0	0	0	0	0	809	0	0
N. salinarum var. *intermedia*	0	0	0	0	0	0	0	0	0	0	0	405	0	0
N. tripunctata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula sp. A	0	0	0	0	0	0	0	809	0	0	0	0	0	0
Navicula sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 17b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	P104	P105	P108	P109	P100	P101	P102	P103	P110	P111	P114	P115	P112	P113
Naidium binode	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dubium	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stylaroides anceps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. phoenicopteron	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirellinees:														
Cymatopleura solea	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epithemia sorex	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E. turgida	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nitzschia acicularis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. amphibia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. angustata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dissipata	0	809	809	0	0	0	0	0	0	1,618	1,618	1,618	3,237	0
N. frustulum	0	0	0	0	0	0	0	0	0	0	0	0	1,618	0
N. linearis	0	0	0	404	0	0	0	0	0	0	809	2,428	1,618	0
N. palea	4,046	0	0	0	0	0	0	0	809	0	0	3,641	8,092	0
Rhopalodia gibba	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirella angustata	0	0	0	0	0	0	0	0	0	0	0	809	0	0
S. biseriata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ovata	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 18a.

Percent numeric composition of periphytic diatoms in replicate rock subsamples collected from seven sites on April 10-12, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7	
	R 102	R 103	R 106	R 107	R 108	R 109	R 112	R 113	R 114	R 115	R 116	R 117	R 118	R 119
Bacillariophyceae Species														
Coscinodiscales:														
Cyclotella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilariales:														
Asterionella formosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoma hiemale	0	0	3.6	0	0	0	0	0	0	7.1	0	0	0	4.1
D. hiemale var. *mesodon*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D. vulgare	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilaria capucina	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens var. *binodis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens var. *venter*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. leptostauron	0	0	0	0	0	0	0	0	0	0	0	0	1.3	1.4
F. producta	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. vaucheriae	0	0	0	0	0	0	0	0	2.0	0	0	0	0	0
Hannaea arcus	0	0	23.6	0	0	0	0	0	5.9	14.3	2.7	0	8.9	2.7
H. arcus var. *amphioxys*	0	0	10.9	0	0	0	0	0	0	0	0	0	0	0
Meridion circulare	0	0	0	0	0	0	0	0	0	7.1	0	0	11.5	8.1
Synedra ulna	0	0	0	0	0	0	0	20.0	0	0	0	0	3.2	0
S. ulna var. *impressa*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ulna var. *oxyrhynchus*	0	0	0	0	0	0	0	0	9.8	0	0	0	0	0
Achnanthales:														
Achnanthes flexella	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A. lanceolata	0	0	3.6	0	0	0	0	0	9.8	7.1	0	0	0.6	1.4
A. lemmermanni	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 18a. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7	
	R102	R103	R106	R107	R108	R109	R112	R113	R114	R115	R116	R117	R118	R119
A. minutissima	34.6	50.0	9.1	0	0	0	0	0	8.8	10.7	2.7	0	15.3	4.7
Achnanthes sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthes sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthes sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis pediculus	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. placentula	0	0	0	0	5.6	0	0	0	0	3.6	5.5	0	1.2	5.4
Rhoicosphenia curvata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naviculales:														
Amphipleura pellucida	0	0	0	0	0	0	0	0	0	0	0	0	1.2	0
Amphora ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cymbella affinis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. caespitosa	0	0	7.3	0	0	33.3	0	0	15.7	0	2.7	0	10.2	41.9
C. cistula	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. cymbiformis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. gracilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. prostrata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. sinuata	11.5	0	0	0	0	0	0	0	0	0	0	0	0	0
C. turgida	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. ventricosa	0	0	0	0	27.8	0	0	0	5.9	7.1	2.7	0	5.1	2.7
Cymbella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diploneis ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Frustulia rhomboides	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. rhomboides var. *viridula*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema geminatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 18a. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7	
	R102	R103	R106	R107	R108	R109	R112	R113	R114	R115	R116	R117	R118	R119
G. hebridenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. herculeanum	0	0	0	0	0	0	0	0	9.8	0	0	0	2.5	1.4
G. intricatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. lanceolatum	3.9	0	0	0	0	0	0	0	0	0	16.4	0	0	0
G. olivaceum	48.1	0	38.2	100.0	66.7	66.7	50.0	80.0	12.7	42.9	58.9	100.0	22.9	8.8
G. parvulum	0	0	0	0	0	0	0	0	0	0	8.2	0	0	10.8
G. parvulum var. *genuinum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gyrosigma spencerii	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula biomphala	0	0	0	0	0	0	50.0	0	0	0	0	0	0	0
N. cryptocephala	0	0	0	0	0	0	0	0	0	0	0	0	0	1.4
N. cuspidata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. festiva	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. gottlandica	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. minima	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. muralis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. pupula	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. radiosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. reinhardii	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. salinarum var. *intermedia*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. tripunctata	0	0	0	0	0	0	0	0	0	0	0	0	1.2	0
Navicula sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula sp. B	1.9	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 18a. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7	
	R102	R103	R106	R107	R108	R109	R112	R113	R114	R115	R116	R117	R118	R119
Neidium binode	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dubium	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stauroneis anceps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. phoenicenteron	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirellinees:														
Cymatopleura solea	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epithemia sorex	0	0	0	0	0	0	0	0	2.0	0	0	0	0	0
E. turgida	0	50.0	0	0	0	0	0	0	2.0	0	0	0	0	0
Nitzschia acicularis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. amphibia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. angustata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dissipata	0	0	3.6	0	0	0	0	0	12.7	0	0	0	0	4.1
N. frustulum	0	0	0	0	0	0	0	0	3.0	0	0	0	3.8	0
N. linearis	0	0	0	0	0	0	0	0	0	0	0	0	1.2	0
N. palea	0	0	0	0	0	0	0	0	0	0	0	0	9.6	1.4
Rhopalodia gibba	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirella angustata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. biseriata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ovata	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 18b.

Percent numeric composition of periphytic diatoms in replicate rock subsamples collected from seven sites on June 14-15, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	R005	R006	R003	R004	R110	R111	R008	R009	R001	R002	R020	R021	R022	R023
Bacillariophyceae Species														
Coscinodiscales:														
Cyclotella sp. A	0	0	0	0	0	0	0	0	0	1.4	0	0	0.4	0
Fragilariales:														
Asterionella formosa	0	0	0	0	0	0	0	0	0	1.4	0	0	0	0
Diatoma hiemale	0	0	1.2	0	0	0	0	0	0	0	0	0	0	0
D. hiemale var. *mesodon*	0	0	0	0	0	0	0	0	0	0	0	0	2.0	0
D. vulgare	0	0	0	0	0	0	0	0	0	0	0.6	1.6	0	0.6
Fragilaria capucina	0	4.6	0	0	0	0	0	0	0	5.5	12.9	0	8.9	8.0
F. construens	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens var. *binodis*	0	0	3.7	0	0	0	0	0	0	2.8	0	0	0	0
F. construens var. *venter*	0	0	2.4	0	0	0	0	0	0	0	0	2.3	0	0
F. leptostauron	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. producta	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. vaucheriae	0	0	0	0	0	0	0	0	0	4.1	0	0	0	0
Hannaea arcus	52.6	20.7	2.4	7.2	32.1	0	13.1	2.7	35.1	18.6	25.8	52.0	65.2	69.1
H. arcus var. *amphioxys*	31.6	20.7	22.0	0	16.0	16.7	2.4	0	0	31.0	25.2	15.0	10.9	6.9
Meridion circulare	0	4.6	7.3	6.4	0	0	0	0	0	0	3.2	3.1	0	0
Synedra ulna	0	2.3	1.2	0.8	0	5.6	0	0	0	2.8	2.6	0	0	2.3
S. ulna var. *impressa*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ulna var. *oxyrhynchus*	0	0												
Achnanthales:			0	0	0	0	0	0	0	0	0	0	0	0
Achnanthes flexella	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A. lanceolata	0	0	0	0	0	11.1	0	0	0	0	0	0.8	0.4	0
A. lemmermanni	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 18b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	R005	R006	R003	R004	R110	R111	R008	R009	R001	R002	R020	R021	R022	R023
A. minutissima	0	2.3	0	7.2	3.8	0	4.5	23.5	0	0	5.2	0	0.8	0.6
Achnanthes sp. A	0	0	1.2	1.2	0	0	0	0	0	0	0.6	0	0	0.6
Achnanthes sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthes sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis pediculus	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. placentula	0	0	0	0	0	5.6	0.4	0	0	2.1	0	0	0	0
Rhoicosphenia curvata	0	2.3	0	0	0	0	0	0	0	0	0	0	0	0
Naviculales:														
Amphipleura pellucida	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Amphora ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cymbella affinis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. caespitosa	0	2.3	3.7	0.8	0	22.2	0.8	2.7	0	0	5.2	3.1	2.4	2.3
C. cistula	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. cymbiformis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. gracilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. prostrata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. sinuata	0	2.3	0	0	0	0	0	0	0	0	0	0	0	0
C. turgida	0	0	0	3.6	0	0	0	0	0	0	1.3	0	0	0
C. ventricosa	0	2.3*	10.4	8.0	0	0	0.8	0	2.7	0	0	1.6	0	0
Cymbella sp. A	0	0	1.2	0	0	0	0	0	0	0	0	0	0	0
Diploneis ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Frustulia rhomboides	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. rhomboides var. *viridula*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema geminatum	0	0	0	0	0	0	0	0	0	0	0	1.6	0	0

Table 18b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	R005	R006	R003	R004	R110	R111	R008	R009	R001	R002	R020	R021	R022	R023
G. hebridenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. herculeanum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. intricatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. lanceolatum	0	0	0	0	3.8	0	10.2	16.4	0	0	0	10.2	0	2.3
G. olivaceum	5.3	26.4	17.7	24.1	35.9	16.7	65.7	48.7	6.8	20.0	9.7	3.9	3.2	7.4
G. parvulum	0	0	9.2	10.4	0.9	0	1.2	1.3	55.4	0	0	0	0	0
G. parvulum var. *genuinum*	0	0	0	0	0	0	0	0	0	6.9	0	0	0	0
Gomphonema sp. A	0	2.3	0	0	0	0	0	0	0	2.8	0	0	0	0
Gyrosigma spencerii	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula biocephala	0	0	0	0.4	0	0	0	0	0	0	1.3	0	0	0
N. cryptocephala	0	2.3	0	2.0	0	0	0	0	0	0	0	0	0	0
N. cuspidata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. festiva	0	0	0	0	0	0	0	3.1	0	0	0	0	0	0
N. gottlandica	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. minima	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. muralis	0	0	3.1	3.2	0	0	0	0	0	0	0	0	0	0
N. pupula	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. radiosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. reinhardii	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. salinarum var. *intermedia*	0	0	0.6	0	0	22.2	0	0	0	0	0	0	0	0
N. tripunctata	0	0	1.2	0	0	0	0	0	0	0	0	0	0	0
Navicula sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula sp. B	0	0	0	0	5.7	0	0.8	0	0	0	0	0	0.4	0

Table 18b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	R005	R006	R003	R004	R110	R111	R008	R009	R001	R002	R020	R021	R022	R023
Neidium bincde	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dubium	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stauroneis anceps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. phoenicenteron	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirellinees:														
Cymtopleura solea	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epithemia sorex	0	0	0	0	0	0	0	0	0	0	2.6	0	0	0
E. turgida	0	0	0	0	0	0	0	0	0	0.7	0	0	0	0
Nitzschia acicularis	0	0	0	0	0	0	0	0.9	0	0	0	0	0	0
N. amphibia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. angustata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dissipata	5.3	0	11.6	12.0	0	0	0	0	0	0	3.9	0	4.4	0
N. frustulum	0	0	0	0	1.9	0	0	0	0	0	0	0	0	0
N. linearis	0	0	0	0.4	0	0	0	0	0	0	0	0	0	0
N. palea	5.3	2.3	0	12.0	0	0	0	0.9	0	0	0	4.7	0.8	0
Rhopalodia gibba	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirella angustata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. biseriata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ovata	0	2.3	0	0	0	0	0	0	0	0	0	0	0	0

Table 18c.

Percent numeric composition of periphytic diatoms in replicate rock subsamples collected from eight sites on August 4-5, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R5	R6	R7	R8	R3	R4	R1	R2	R9	R10	R11	R12	R13	R14	R15	R16
Bacillariophyceae Species																
Coscinodiscales:																
Cyclotella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilariales:																
Asterionella formosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoma hiemale	0	0	4.8	3.0	0	0	0	0	3.6	0.6	0	0	0	2.7	0	4.3
D. hiemale var. *mesodon*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D. vulgare	0	0	0	0	0	0	0	0	0	0	1.5	0	0	0.9	0	0
Fragilaria capucina	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens var. *binodis*	0	0	0	2.2	0	0	0	0	0	1.9	0	0	0	0	0	0
F. construens var. *venter*	0	9.5	0	0.7	0	0	0	0	0	0	0	0	0	2.7	0	0
F. leptostauron	0	0	0	0	0	0	0	0	0	0	0	0	0	1.8	0	0
F. producta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. vaucheriae	0	0	0	4.5	0	0	0	16.7	0.8	2.5	1.5	0	0	0.9	0	0
Harnaea arcus	20.0	9.5	19.8	16.7	0	6.8	14.3	0	5.2	7.1	3.0	16.7	0	16.5	41.9	72.3
H. arcus var. *amphioxys*	0	0	1.6	0	0	0	0	0	0	0	0	0	0	0.9	0	0
Meridion circulare	0	0	0.4	1.9	0	0	0	0	0.4	0	0	0	0	0.9	1.6	0
Synedra ulna	0	9.5	16.3	20.5	0	0	0	0	1.2	2.2	0.8	0	44.4	9.0	3.2	0
S. ulna var. *impressa*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ulna var. *oxyrhynchus*	0	0	0	0	0	0	0	0	1.6	0	0	0	0	0	0	0
Achnanthales:																
Achnanthes flexella	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	0	0
A. lanceolata	0	0	0.8	0.4	0	0	0	0	12.5	11.7	0	16.7	0	1.8	0	0
A. lemmermanni	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 18c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R5	R6	R7	R8	R3	R4	R1	R2	R9	R10	R11	R12	R13	R14	R15	R16
A. minutissima	0	0	3.6	4.8	71.4	0	57.1	16.7	11.7	15.4	3.0	0	0	5.4	0	0
Achnanthes sp. A	0	0	1.6	0	0	0	0	0	0	0.6	0	0	0	0	0	0
Achnanthes sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthes sp. C	0	0	0	0	0	0	0	0	0	0.6	0	0	0	0	0	0
Cocconeis pediculus	0	0	0	0	0	0	0	0	0.8	0	0	0	0	0	0	0
C. placentula	0	4.8	3.2	2.2	0	2.3	0	0	3.6	2.8	63.9	33.3	11.1	1.8	3.2	0
Rhoicosphenia curvata	0	0	0	1.5	0	0	0	0	0.8	0	0	0	0	0	0	0
Naviculales:																
Amphipleura pellucida	0	0	1.2	0	0	2.3	0	0	0.4	0	0	0	0	0	0	0
Amphora ovalis	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0
Cymbella affinis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.2	0
C. caespitosa	20.0	19.1	7.1	7.1	0	34.1	0	0	5.2	8.3	0	0	22.2	8.5	3.2	4.3
C. cistula	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. cymbiformis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. gracilis	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0
C. prostrata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. sinuata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. turgida	0	0	0	0	0	0	0	0	0.8	0.6	0	0	0	0	0	0
C. ventricosa	0	0	2.4	6.3	0	9.1	0	0	1.6	3.1	10.5	33.3	0	6.3	3.2	0
Cymbella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diploneis ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	0	0
Frustulia rhomboides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. rhomboides var. *viridula*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema geminatum	0	0	0	0	0	0	0	8.3	1.2	1.9	0	0	0	0	4.8	0

Table 18c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R5	R6	R7	R8	R3	R4	R1	R2	R9	R10	R11	R12	R13	R14	R15	R16
G. hebridenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. herculeanum	0	0	0	0	0	0	0	0	1.6	1.2	0	0	0	0	0	0
G. intricatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. lanceolatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. olivaceum	60.0	28.6	3.6	0	0	22.7	0	8.3	1.6	6.8	5.3	0	0	1.8	0	0
G. parvulum	0	0	6.8	10.0	28.6	9.1	28.6	0	17.3	17.9	0	0	22.2	10.7	19.4	4.3
G. parvulum var. *genuinum*	0	0	0	1.5	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gyrosigma spencerii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula bicephala	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. cryptocephala	0	0	0.8	0	0	0	0	0	0	0	0.8	0	0	0	0	0
N. cuspidata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. festiva	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. gottlandica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. minima	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. muralis	0	0	0.4	0	0	0	0	0	0.8	0.9	0	0	0	0.5	0	0
N. pupula	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. radiosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. reinhardii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. salinarum var. *intermedia*	0	0	1.2	1.5	0	0	0	0	4.4	0.6	0	0	0	1.8	0	0
N. tripunctata	0	0	0	0.7	0	0	0	0	0	0	3.0	0	0	0	3.2	0
Navicula sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula sp. B	0	0	0	0	0	0	0	0	2.0	0	0	0	0	0.5	0	0

Table 18c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R5	R6	R7	R8	R3	R4	R1	R2	R9	R10	R11	R12	R13	R14	R15	R16
Neidium binode	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dubium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stauroneis anceps	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0
S. phoenicenteron	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirellinees:																
Cymatopleura solea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epithemia sorex	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E. turgida	0	0	0	0	0	0	0	0	0	0	1.6	0	0	0	0	0
Nitzschia acicularis	0	0	0	0.7	0	0	0	0	0.8	0	0	0	0	0	0	0
N. amphibia	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0
N. angustata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dissipata	0	0	13.5	4.5	0	4.6	0	0	3.2	0	4.9	0	0	2.7	9.7	0
N. frustulum	0	0	0	0	0	0	0	0	0.8	1.2	0	0	0	0.9	0	0
N. linearis	0	0	1.6	3.7	0	0	0	0	0	0	0.8	0	0	2.8	3.2	2.1
N. palea	0	19.1	4.0	5.6	0	9.1	0	33.4	14.5	11.4	0	0	0	17.0	0	8.5
Rhopalodia gibba	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirella angustata	0	0	1.6	0	0	0	0	16.7	1.2	0.6	0	0	0	0	0	4.3
S. biseriata	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ovata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 18d.

Percent numeric composition of periphytic diatoms in replicate rock subsamples collected from eight sites on September 11-12, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R104	R105	R108	R109	R100	R101	R102	R103	R110	R111	R106	R107	R114	R115	R112	R113
Bacillariophyceae Species																
Coscinodiscales:																
Cyclotella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilariales:																
Asterionella formosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoma hiemale	0	4.0	8.7	1.4	0	1.1	0	0	0.8	0	0	0	0.2	0	0	0
D. hiemale var. *mesodon*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D. vulgare	0	0	0	0	0	0	0	0	0	1.7	0	0	0	0	0	0
Fragilaria capucina	0	0	0	0	0	2.2	0	0	0	0	0	0	0.6	5.4	0	0
F. construens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens var. *binodis*	0	0	0	0	0	1.1	0	0	0.8	0	0	0	0	0.7	0	0
F. construens var. *venter*	0	9.3	0	0	0	0	0	0	0	0	0	0	2.9	0	0	0
F. leptostauron	0	0	0	1.0	0	0	0	0	0	0	0	0	0.3	0	0	0
F. pinnata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. vaucheriae	5.4	0	0	1.0	0	1.1	0	0	1.6	0	0	0	0.3	0.7	0	0
Hannea arcus	5.4	5.3	0	9.0	2.4	2.2	0	0	2.4	0	0	13.3	1.1	4.4	8.4	0
H. arcus var. *amphicyon*	0	0	0	0	0	0	0	0	0	13.6	0	0	0	2.0	0	0
Meridion circulare	0	0	0	0	0	0	0	0	1.6	0	0	0	1.0	0.7	0	0
Synedra ulna	5.4	13.3	8.7	13.7	0	1.1	0	0	7.6	49.2	0	0	0	0.7	4.8	0
S. ulna var. *impressa*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ulna var. *oxyrhynchus*	0	0	0	0	0	0	9.1	0	0	0	0	0	0.3	1.4	0	0
Achnanthales:																
Achnanthes flexella	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A. lanceolata	16.2	0	8.7	4.3	4.9	0	0	0	8.0	3.4	50.0	13.3	0	3.4	0	0
A. lemmermanni	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 180. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 8	
	R104	R105	R108	R109	R100	R101	R102	R103	R110	R111	R106	R107	R114	R115	R112	R113
A. minutissima	0	2.7	8.7	7.6	0	7.6	36.4	0	8.8	3.4	0	0	54.8	16.5	9.8	19.4
Achnanthes sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthes sp. B	0	2.7	0	0	0	0	0	0	3.6	0	0	0	0	4.0	0	0
Achnanthes sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis pediculus	0	0	0	1.0	61.0	9.7	0	0	0	0	0	0	0	0	0	0
C. placentula	32.4	2.7	17.4	6.2	7.3	11.9	0	100.0	21.7	11.9	50.0	20.0	1.8	7.7	19.3	38.5
Rhoicosphenia curvata	0	0	0	0	0	0	0	0	0.8	0	0	0	0.3	0	0	0
Naviculales:																
Amphipleura pellucida	0	2.7	0	0	3.7	4.3	0	0	0	0	0	6.7	0	0	0	0
Amphora ovalis	0	0	0	0	0	0	0	0	0	0	0	0	1.0	1.4	0	0
Cymbella affinis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. cesplitosa	5.4	0	8.7	2.8	0	3.2	0	0	0.8	0	0	0	1.9	4.7	26.5	0
C. cistula	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. cymbiformis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. gracilis	0	2.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. prostrata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. sinuata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. turgida	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. ventricosa	0	8.0	0	7.6	3.7	1.1	0	0	8.0	3.4	0	40.0	4.8	4.7	2.4	0
Cymbella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diploneis ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Frustulia rhomboides	0	0	0	1.0	0	0	0	0	0	0	0	0	0	1.4	0	0
F. rhomboides var. *viridula*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema geminatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.4	0

Table 18d. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R104	R105	R108	R109	R100	R101	R102	R103	R110	R111	R106	R107	R114	R115	R112	R113
G. hebridenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. herculeanum	0	5.3	0	1.4	2.4	3.2	0	0	4.4	0	0	0	0	0	0	0
G. intricatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. lanceolatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. olivaceum	18.9	22.7	17.4	5.7	0	14.1	18.2	0	15.7	3.4	0	0	4.0	5.7	12.0	0
G. parvulum	5.4	5.3	0	0	4.9	9.7	0	0	2.4	0	0	0	0	3.0	0	46.2
G. parvulum var. *genuinum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gyrosigma spencerii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula bicephala	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. cryptocephala	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. cuspidata	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0
N. festiva	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. gottlandica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. minima	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. muralis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. pupula	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. radiosa	0	0	0	0	0	1.6	0	0	0	0	0	0	2.9	7.8	0	0
N. reinhardii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. salinarum var. *intermedia*	0	0	4.4	7.1	0	0	0	0	2.4	6.8	0	0	0.3	0.3	0	0
N. tripunctata	0	0	0	0	0	1.1	0	0	0	0	0	0	0	0	2.4	0
Navicula sp. A	0	0	0	0	2.4	0	0	0	0	0	0	0	0.3	1.4	0	0
Navicula sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 18d. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R104	R105	R108	R109	R100	R101	R102	R103	R110	R111	R106	R107	R114	R115	R112	R113
Neidium binode	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dubium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stauroneis anceps	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. phoenicenteron	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirellinees:																
Cymatopleura solea	0	2.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epithemia sorex	0	0	0	0	0	1.1	0	0	0	0	0	0	0	0	0	0
E. turgida	0	0	8.7	0	0	3.2	0	0	2.0	0	0	6.7	0 0	0	0	
Nitzschia acicularis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. amphibia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. angustata	0	0	0	1.0	0	0	0	0	0	0	0	0	5.3	0	0	0
N. dissipata	0	8.0	0	7.6	0	8.7	0	0	2.8	3.4	0	0	2.9	3.4	4.8	0
N. frustulum	5.4	0	0	1.0	0	3.2	0	0	0	0	0	0	6.5	1.4	0	0
N. linearis	0	2.7	0	0.5	0	0	0	0	0.4	0	0	0	0.3	2.7	0	0
N. palea	0	0	8.7	18.5	7.3	7.6	36.4	0	3.2	0	0	0	5.8	14.2	7.2	0
Rhopalodia gibba	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0
Surirella angustata	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0
S. biseriata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ovata	0	0	0	1.0	0	0	0	0	0	0	0	0	0	0	0	0

Table 19a.

Percent numeric composition of periphytic diatoms on replicate whole rocks collected from two sites on April 10-12, 1976.

Species	Station 1		Station 3	
	W104	W105	W110	W111
Bacillariophyceae Species				
Coscinodiscales:				
Cyclotella sp. A	0	0	0	0
Fragilariales:				
Asterionella formosa	0	0	0	0
Diatoma hiemale	0	0	0	0
D. hiemale var. *mesodon*	0	0	0	0
D. vulgare	0	58.3	30.3	0
Fragilaria capucina	0	0	0	0
F. construens	0	0	0	0
F. construens var. *binodis*	0	0	0	0
F. construens var. *venter*	0	0	0	0
F. leptostauron	0	0	0	0
F. producta	0	0	0	0
F. vaucheriae	0	0	0	0
Harmaea arcus	0	0	0	0
H. arcus var. *amphioxys*	0	0	0	30.8
Meridion circulare	0	0	0	0
Synedra ulna	0	16.7	3.1	7.7
S. ulna var. *impressa*	0	0	0	0
S. ulna var. *oxyrhynchus*	0	0	0	0
Achnanthales:				
Achnanthes flexella	0	0	0	0
A. lanceolata	0	0	6.1	30.8
A. lemmermanni	0	0	0	0

Table 19a. (Continued)

Species	Station 1		Station 3	
	W104	W105	W110	W111
A. minutissima	100.0	0	0	7.7
Achnanthes sp. A	0	0	0	0
Achnanthes sp. B	0	0	0	0
Achnanthes sp. C	0	0	0	0
Cocconeis pediculus	0	0	0	0
C. placentula	0	0	0	0
Rhoicosphenia curvata	0	0	12.1	0
Naviculales:				
Amphipleura pellucida	0	0	0	0
Amphora ovalis	0	0	6.1	0
Cymbella affinis	0	0	0	0
C. caespitosa	0	0	6.1	0
C. cistula	0	0	0	0
C. cymbiformis	0	0	0	0
C. gracilis	0	0	0	0
C. prostrata	0	0	0	0
C. sinuata	0	0	0	0
C. turgida	0	0	0	0
C. ventricosa	0	0	12.1	0
Cymbella sp. A	0	0	0	0
Diploneis ovalis	0	0	0	0
Frustulia rhomboides	0	0	0	0
F. rhomboides var. *viridula*	0	0	0	0
Gomphonema geminatum	0	0	0	0

Table 19a. (Continued)

Species	Station 1		Station 3	
	W104	W105	W110	W111
G. hebridenses	0	0	0	0
G. herculeanum	0	0	0	0
G. intricatum	0	0	0	0
G. lanceolatum	0	0	0	0
G. olivaceum	0	8.3	6.1	23.1
G. parvulum	0	0	0	0
G. parvulum var. *genuinum*	0	0	0	0
Gomphonema sp. A	0	0	0	0
Gyrosigma spencerii	0	0	0	0
Navicula bicephala	0	0	0	0
N. cryptocephala	0	0	0	0
N. cuspidata	0	0	0	0
N. festiva	0	0	0	0
N. gottlandica	0	0	0	0
N. minima	0	0	0	0
N. muralis	0	0	0	0
N. pupula	0	0	0	0
N. radiosa	0	0	0	0
N. reinhardii	0	0	0	0
N. salinarum var. *intermedia*	0	16.7	0	0
N. tripunctata	0	0	12.1	0
Navicula sp. A	0	0	0	0
Navicula sp. B	0	0	0	0

Table 19a. (Continued)

Species	Station 1		Station 3	
	W104	W105	W110	W111
Neidium binode	0	0	0	0
N. dubium	0	0	0	0
Stauroneis anceps	0	0	0	0
S. phoenicenteron	0	0	0	0
Surirellinees:				
Cymatopleura solea	0	0	0	0
Epithemia sorex	0	0	0	0
E. turgida	0	0	0	0
Nitzschia acicularis	0	0	0	0
N. amphibia	0	0	0	0
N. angustata	0	0	0	0
N. dissipata	0	0	0	0
N. frustulum	0	0	0	0
N. linearis	0	0	0	0
N. palea	0	0	6.1	0
Rhopalodia gibba	0	0	0	0
Surirella angustata	0	0	0	0
S. biseriata	0	0	0	0
S. ovata	0	0	0	0

Table 19b.

Percent numeric composition of periphytic diatoms on replicate whole rocks collected from seven sites on August 4-5, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	W5	W6	W7	W8	W3	W4	W1	W2	W9	W10	W11	W12	W13	W14
Bacillariophyceae Species														
Coscinodiscales:														
Cyclotella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilariales:														
Asterionella formosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoma hiemale	0	5.0	1.4	2.8	0	0	0	0.9	0.9	0.9	0.7	4.9	3.4	0
D. hiemale var. *mesodon*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D. vulgare	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilaria capucina	0	0	0	1.4	0	0	0	0	0	0	0	0	0	0
F. construens	0	0	0	0	0	0	0	0	0	2.8	0	0	0	0
F. construens var. *binodis*	0	0	0	0	0	0.8	8.3	0	0	0	0.4	0	0	3.7
F. construens var. *venter*	0	0	5.3	2.1	0	0	16.7	0	0	0	8.3	6.2	0	0
F. leptostauron	0	0	0	0	1.2	0.8	0	0	0	0.9	0	0	0	0
F. producta	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. vaucheriae	0	5.9	0	1.4	0	1.6	0	1.8	2.8	0	0.4	0	0	0
Hannaea arcus	0	0	12.0	12.8	23.8	6.1	25.0	5.9	8.5	3.7	4.8	9.2	20.0	7.2
H. arcus var. *amphioxys*	0	19.8	0	0	0	0	0	0	0	0	0	0	1.1	0
Meridion circulare	0	0	0	0.7	0	0.8	0	0	2.8	0.9	0.9	1.2	0	0
Synedra ulna	0	5.0	25.0	25.3	14.9	6.5	0	2.3	5.6	3.7	2.2	6.2	0.6	0
S. ulna var. *impressa*	0	0	0	0	0	0.8	0	0	0	0	0	0	0	0
S. ulna var. *oxyrhynchus*	0	0	0	0	5.4	4.5	0	0	0	0	0	0	0	0
Achnanthales:														
Achnanthes flexella	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A. lanceolata	0	9.9	1.9	2.8	0.6	2.8	0	1.4	2.8	1.4	0.4	2.5	2.9	2.2
A. lemmermanni	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 19b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	W5	W6	W7	W8	W3	W4	W1	W2	W9	W10	W11	W12	W13	W14
A. minutissima	0	2.0	3.4	6.9	1.8	4.9	0	32.4	7.0	7.9	20.0	8.0	10.9	24.3
Achnanthes sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthes sp. B	0	2.0	0	0	0	0	0	0	0.9	0	3.1	1.2	0	0
Achnanthes sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis pediculus	0	0	0	0	1.2	0	0	0	0	0	0	0	0	0
C. placentula	30.0	6.9	1.9	2.8	4.8	6.9	12.5	0.9	8.5	6.5	0.2	0	2.3	1.6
Rhoicosphenia curvata	0	0	0	0	0	0	0	0	0	1.9	0	0	0	0
Naviculales:														
Amphipleura pellucida	0	2.0	0	0.3	0	0	0	0	0	0	0	2.5	0	0
Amphora ovalis	0	0	0	0	0	0	0	0	0.9	0	0	0	0	0
Cymbella affinis	0	0	0	0.7	0	0	0	3.2	0	0	0	0	0	0
C. caespitosa	20.0	13.8	13.0	6.2	16.7	12.2	16.7	34.6	8.9	10.2	14.7	22.8	9.1	8.1
C. cistula	0	0	0	0	0	0	0	1.8	0	0	0	0	0	0
C. cymbiformis	0	0	0	0	0	0	0	0	0	1.9	0	0	0	0
C. gracilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. prostrata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. sinuata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. turgida	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. ventricosa	0	2.0	1.9	7.6	0	0.8	0	2.3	4.7	1.9	2.6	2.5	0	3.1
Cymbella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diploneis ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Frustulia rhomboides	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. rhomboides var. *viridula*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema geminatum	0	0	0	0.7	0	0	12.5	3.6	1.4	0.9	0.4	0	0	0.6

Table 19b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	W5	W6	W7	W8	W3	W4	W1	W2	W9	W10	W11	W12	W13	W14
G. hebridenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. herculeanum	0	0	1.9	0	0	0	0	0	2.8	0.9	0	0	0	0
G. intricatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. lanceolatum	0	2.0	0	0	0	0	0	0	0	0	1.3	0	0	0
G. olivaceum	0	17.8	10.6	6.6	14.9	29.7	0	3.6	15.5	26.1	6.6	2.5	12.6	10.0
G. parvulum	50.0	0	0	0.3	0	0	8.3	1.8	1.9	5.1	8.8	14.2	7.4	13.7
G. parvulum var. *genuinum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gyrosigma spencerii	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula bicephala	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. cryptocephala	0	0	0	0	0	1.6	0	0	0	0	0	0	0	0
N. cuspidata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. festiva	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. gottlandica	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. minima	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. muralis	0	0	0	0	0	0	0	0	0.9	0	1.3	0	0	0
N. pupula	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. radiosa	0	0	1.4	3.8	0.6	0.8	0	0	3.3	2.8	2.6	2.5	0	0.6
N. reinhardii	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. salinarum var. *intermedia*	0	0	0	1.4	0	3.3	0	0	0	0	0.2	0	2.3	1.2
N. tripunctata	0	0	0	0	0	0	0	0	0	0	0	0	2.3	0
Navicula sp. A	0	0	0	0	0	0	0	1.8	0	2.8	0	0	0	0.6
Navicula sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 19b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	W5	W6	W7	W8	W3	W4	W1	W2	W9	W10	W11	W12	W13	W14
Neidium binode	0	0	1.0	0	0	0	0	0	0	0	0	0	0	0
N. dubium	0	0	0	0.7	0	0	0	0	0	0	0	0	0	0
Stauroneis anceps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. phoenicenteron	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirellinees:														
Cymatopleura solea	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epithemia sorex	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E. turgida	0	0	0	0	5.9	1.6	0	0	0	0	0	0	0	0
Nitzschia acicularis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. amphibia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. angustata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dissipata	0	4.0	6.7	4.8	2.4	7.3	0	0	4.7	0.9	5.3	7.4	0	7.5
N. frustulum	0	0	1.0	1.4	0	0	0	0.5	0	2.8	3.1	0	1.1	0
N. linearis	0	2.0	2.9	0.7	0	0	0	0	0.9	1.4	0	0	10.3	1.2
N. palea	0	0	5.8	5.9	5.9	6.1	0	1.4	13.2	11.6	11.4	6.2	13.7	14.3
Rhopalodia gibba	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirella angustata	0	0	1.9	0	0	0	0	0	0.9	0	0.4	0	0	0
S. biseriata	0	0	1.0	0	0	0	0	0	0	0	0	0	0	0
S. ovata	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 19c.

Percent numeric composition of periphytic diatoms on replicate whole rocks collected from eight sites on September 11-12, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	W104	W105	W108	W109	W100	W101	W102	W103	W110	W111	W106	W107	W114	W115	W112	W113
Bacillariophyceae Species																
Coscinodiscales:																
Cyclotella sp. A	1.2	7.6	0	3.1	0	2.3	0	0	0	0	0	0	1.4	0	0.9	0
Fragilariales:																
Asterionella formosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoma hiemale	1.2	0	1.8	1.5	0	0	0	0	0	0	3.1	5.1	0	0	0	1.0
D. hiemale var. *mesodon*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D. vulgare	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilaria capucina	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens var. *binodis*	0	0	0	0	0	0	0	1.9	2.3	0	0	0	3.4	0	0	0
F. construens var. *venter*	0	0	2.4	1.5	0	0	0	0	2.3	0	3.1	0	0	0.7	0	0
F. leptostauron	0	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0	0
F. producta	0	0	0	0	0	0	0	0	0	0	0	0	0	1.4	0	0
F. vaucheriae	2.4	0	0.6	0	0	0.9	0	0	3.8	5.6	0.8	0	0.7	2.1	0	0
Hannaea arcus	1.2	3.2	4.2	7.7	1.1	0	0	0	5.3	1.4	5.1	0	6.4	2.8	1.8	0
H. arcus var. *amphioxys*	0	0	0	0	0	0	0	0	0	0.9	0	2.6	0	3.8	0	7.7
Meridion circulare	0	0	0	3.1	0	0	0	0	0	0	2.0	0	2.0	0	0	0
Synedra ulna	6.0	6.0	5.0	8.1	6.4	4.6	0	0	2.3	11.2	2.7	7.7	6.4	5.5	0	1.0
S. ulna var. *impressa*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ulna var. *oxyrhynchus*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthales:																
Achnanthes flexella	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A. lanceolata	0.6	2.2	3.9	3.1	7.5	0.9	0	1.9	6.4	1.4	1.6	2.6	2.0	1.7	9.7	11.2
A. lemmermanni	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0

Table 19c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	W104	W105	W108	W109	W100	W101	W102	W103	W110	W111	W106	W107	W114	W115	W112	W113
A. minutissima	22.8	6.5	14.8	8.4	4.3	6.4	20.7	44.2	8.0	7.0	14.1	33.3	10.5	21.0	11.1	13.8
Achnanthes sp. A	0	1.6	0.9	0	0	0	0	0	0	0.5	2.0	2.6	1.0	0	0	0
Achnanthes sp. B	0	0	0	0	0	0	0	0	0	0.9	0	0	0.7	1.0	0	1.0
Achnanthes sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis pediculus	0	0	0	0	7.5	15.5	0	0	0	0	2.3	0	0	0	0	0
C. placentula	13.2	3.8	11.3	7.3	33.7	18.3	44.8	0.5	15.2	17.3	20.7	6.4	3.7	9.3	9.7	6.6
Rhoicosphenia curvata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0
Naviculales:																
Amphipleura pellucida	1.2	0	0.9	0.4	1.1	0.9	0	0	0.8	0.5	0	0	1.4	1.0	0	0
Amphora ovalis	0	0	0	0	0	0	0	0	0.8	0	0	0	0	0	0	0
Cymbella affinis	1.2	0	0.6	0	0	0	0	0	0	0	0.8	0	0	0	0	1.0
C. caespitosa	12.0	8.6	6.8	4.2	4.3	2.7	13.8	14.4	2.3	6.5	0	0	9.8	7.6	11.1	7.1
C. cistula	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. cymbiformis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. gracilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. prostrata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. sinuata	0	0	0	0	0	0	0	0	0	0	0	0	0.7	0.7	0	0
C. turgida	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. ventricosa	1.2	5.4	4.7	5.4	0	0	6.9	7.7	8.3	3.7	12.5	15.4	1.4	2.8	3.7	1.0
Cymbella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diploneis ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Frustulia rhomboides	0	0	1.2	0	0	0	0	0	0	0	0	0	0	0	0.9	0
F. rhomboides var. *viridula*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0
Gomphonema geminatum	0	0	0	0	0	0	0	22.6	0	0.9	0	0	0	0	1.8	0

Table 19c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	W104	W105	W108	W109	W100	W101	W102	W103	W110	W111	W106	W107	W114	W115	W112	W113
G. hebridenses	0	0	0	0	0	0	0	0	0	0	0	0	1.4	0	0	0
G. herculeanum	1.2	0	1.8	0.8	0	0	0	0	0.8	3.7	0	0	5.8	3.5	0.9	0
G. intricatum	0	0	0	0	0	0.9	0	0	0	0	0	0	0	0	0	0
G. lanceolatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. olivaceum	27.0	37.3	6.2	13.0	16.0	11.0	13.8	1.0	17.8	15.0	5.9	0	11.2	7.6	15.7	16.8
G. parvulum	0	1.6	0	1.5	0	0	0	0	1.5	0	1.6	0	10.9	2.4	6.0	12.3
G. parvulum var. *genuinum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gyrosigma spencerii	0	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0
Navicula bicephala	0	0	0	0	0	0	0	4.3	0.8	0	1.6	0	0	0	0	0
N. cryptocephala	0	0	6.0	3.8	1.1	0	0	0	3.8	0	2.7	3.9	0	2.8	1.8	0
N. cuspidata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. festiva	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. gottlandica	0	0	0	0	2.1	0	0	0	0	0	0	0	0	0	0	0
N. minima	0	0	2.7	0	0	0	0	0	0	0	0.8	2.6	0	0	0	0
N. muralis	0	1.1	0	0.4	0.5	0.9	0	0	0.8	0	0	0	1.4	0.7	0	0
N. pupula	0	1.1	0	0	1.1	0	0	0	0	0	0	0	0	0	0	0
N. radiosa	0	0	0	0	0	0	0	0	0.8	0	0	0	0	0	0	0
N. reinhardii	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0.7	0.9	0
N. salinarum var. *intermedia*	3.0	1.6	0	0	0	1.8	0	0.5	0	0	0	0	2.7	0	1.8	1.0
N. tripunctata	0	0	1.2	0	0	1.8	0	0	0	0	3.9	5.1	0	0	0	1.0
Navicula sp. A	0	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0
Navicula sp. B	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 19c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	#104	#105	#108	#109	#100	#101	#102	#103	#110	#111	#106	#107	#114	#115	#112	#113
Naidium binode	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dubium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stauronais anceps	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. phoenicopteron	0	0	0	0	0	0	0	0	0.4	0	0	0	0	0	0	0
Surirellinees:																
Cymatopleura solea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epithemia sorex	0	0	0	0	0	2.7	0	0	0	0	0	0	0	0	0	0
E. turgida	0	0	0.6	0	3.2	4.6	0	0	0.8	6.5	0	0	0	0	0	0
Nitzschia acicularis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. amphibia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. angustata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dissipata	0	4.3	11.9	6.9	1.6	6.8	0	0	4.5	8.4	1.6	2.6	7.5	12.9	12.9	7.1
N. frustulum	0	0	0.6	0	0	3.6	0	0	0.8	1.9	0	0	0	2.4	2.8	0
N. linearis	0	1.1	1.8	9.2	2.1	0.9	0	0	1.5	0	1.6	2.6	3.1	1.0	5.5	6.1
N. palea	4.8	6.0	7.1	7.7	6.4	12.3	0	0	8.1	6.5	9.8	7.7	5.8	4.8	0.9	4.1
Rhopalodia gibba	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirella angustata	0	1.1	0	1.5	0	0	0	0	0	0	0	0	0	0	0	0
S. bisseriata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ovata	0	0	0	0	0	0	0	1.0	0	0	0	0	0	0	0	0

Table 19d.

Percent numeric composition of periphytic diatoms on replicate whole rocks collected from the Flathead River on August 26, 1980.

Species	Station 3	
	Rock F1	Rock F2
Coscinodiscales:		
Cyclotella glomerata	1.26	.00
Eunotiales		
Eunotia sp.	.00	.56
Fragilariales:		
Asterionella formosa	.00	.00
Diatoma elongatum	.00	.00
D. hiemale	.63	.00
D. hiemale var. *mesodon*	.00	.00
D. vulgare	.00	.00
Fragilaria capucina	.00	.00
F. construens	.00	.00
F. construens var. *binodis*	.00	.00
F. construens var. *venter*	.00	.56
F. crotonensis	.00	.00
F. heidenii	.00	.00
F. leptostauron	.63	.00
F. pinnata	.00	.00
F. producta	.00	.00
F. vaucheriae	1.89	4.51
Hannaea arcus	.00	.56
H. arcus var. *amphioxys*	.00	.00

Table 19d. (Continued)

Species	Station 3	
	Rock F1	Rock F2
Meridion circulare	.00	.00
Synedra acus var. *radians*	.00	.00
S. ulna	.63	.00
S. ulna var. *impressa*	.00	.00
S. ulna var. *oxyrhynchus*	1.26	1.69
S. ulna var. *oxyrhynchus* f. *contracta*	.00	.00
Tabellaria flocculosa	.94	.00
Achnanthales:		
Achnanthes flexella	.00	.00
A. lanceolata	.63	1.13
A. lemmermanni	.00	.00
A. minutissima	9.12	21.41
Achnanthes sp.	1.89	2.82
Cocconeis pediculus	3.14	5.07
C. placentula	38.99	28.17
Rhoicosphenia curvata	.63	.00
Naviculales:		
Amphipleura pellucida	.63	.00
Amphora ovalis	.00	.00
Anomoeneis exilis	.00	.56
Cymbella affinis	.00	.00
C. caespitosa	.94	2.54
C. cistula	.00	.00
C. cymbiformis	.00	.00
C. gracilis	.00	.00

Table 19d. (Continued)

Species	Station 3	
	Rock F1	Rock F2
C. prostrata	.00	.00
C. sinuata	.63	1.69
C. turgida	.00	.00
C. ventricosa	1.89	1.13
Cymbella sp. A	.00	.00
Diploneis ovalis	.00	.00
Frustulia rhomboides	.00	.00
F. rhomboides var. *viridula*	.00	.00
Gomphonema geminatum	.00	.00
G. hebridenses	.00	.00
G. herculeanum	.00	.00
G. intricatum	.00	.00
G. lanceolatum	.00	.00
G. olivaceoides	.00	.00
G. olivaceum	14.78	10.14
G. parvulum	.00	.00
G. parvulum var. *genuinum*	.00	.00
Gomphonema sp. A	.00	.00
Gyrosigma spencerii	.00	.00
Navicula arvensis	.00	.00
N. bicephala	.00	.00
N. capitata var. *hungarica*	.00	.00
N. cryptocephala	.00	.00
N. cuspidata	.00	.00

Table 19d. (Continued)

Species	Station 3	
	Rock F1	Rock F2
N. festiva	.00	.00
N. gottlandica	.00	.00
N. minima	.00	.00
N. muralis	.00	.00
N. pelliculosa	.00	.00
N. pupula	.00	.00
N. radiosa	1.89	.00
N. reinhardii	.00	.00
N. salinarum var. *intermedia*	.00	1.13
N. tripunctata	.00	.00
N. viridula	.00	.00
Navicula sp.	5.35	3.38
Neidium binode	.00	.00
N. dubium	.00	.00
Neidium sp.	.00	.56
Stauroneis anceps	.00	.00
S. phoenicenteron	.00	.00
Surirellinees:		
Cymatopleura solea	.00	.00
Denticula elegans	.63	.00
Epithemia sorex	1.89	1.69
E. turgida	5.35	1.69
Nitzschia acicularis	.63	.00
N. actinastroides	.00	.00
N. amphibia	.00	.00

Table 19d. (Continued)

Species	Station 3	
	Rock F1	Rock F2
N. angustata	.00	.00
N. dissipata	.63	3.94
N. frustulum	.63	1.13
N. linearis	.00	.00
N. palea	1.89	3.38
Rhopalodia gibba	.63	.56
Surirella angustata	.00	.00
S. biseriata	.00	.00
S. ovata	.00	.00
Number of Species	28	24
Shannon-Wiener Index	3.35	3.48

Table 19e.

Percent numeric composition of periphytic diatoms on replicate whole rocks collected from two sites on July 28, 1982.

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
Coscinodiscales:						
Cyclotella glomerata	.00	.00	.00	.00	.00	.00
Eunotiales						
Eunotia sp.	.00	.00	.00	.00	.00	.00
Fragilariales:						
Asterionella formosa	.00	.00	.00	.00	.00	.00
Diatoma elongatum	.00	.00	.55	.00	.92	1.19
D. hiemale	.00	.00	1.65	.00	.00	.00
D. hiemale var. *mesodon*	1.48	1.63	1.65	.00	.00	.00
D. vulgare	.00	.00	.00	.00	.00	.00
Fragilaria capucina	.00	.00	.00	.00	.00	.00
F. construens	.00	.00	.00	.00	.00	.00
F. construens var. *binodis*	.00	.00	.00	.00	.00	.00
F. construens var. *venter*	.00	.00	.00	.00	.00	.00
F. crotonensis	.00	.00	.00	.32	.00	.00
F. heidenii	.00	.27	.00	.00	.00	.00
F. leptostauron	.00	.54	.27	.00	.00	.00
F. pinnata	.00	.00	.27	.00	.00	.00
F. producta	.00	.00	.00	.00	.00	.00
F. vaucheriae	.59	.27	.55	.00	.00	.00
Hannaea arcus	1.78	4.07	3.30	1.59	.00	.00
H. arcus var. *amphioxys*	.30	.54	.82	.00	.00	.00

Table 19e. (Continued)

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
Meridion circulare	1.18	1.36	.82	1.91	.00	.00
Synedra acus var. *radians*	.00	.00	.55	.00	.31	.00
S. ulna	10.36	16.53	12.64	1.91	1.22	3.26
S. ulna var. *impressa*	.00	.00	.00	.00	.00	.00
S. ulna var. *oxyrhynchus*	.00	4.34	2.75	.00	.00	.59
S. ulna var. *oxyrhynchus* f. *contracta*	.00	.00	.00	.00	.00	.00
Tabellaria flocculosa	.00	.00	.00	.00	.00	.00
Achnanthales:						
Achnanthes flexella	.00	.00	.00	.00	.00	.00
A. lanceolata	3.25	1.90	1.65	.64	1.22	1.48
A. lemmermanni	.00	.00	.00	.00	.00	.00
A. minutissima	5.33	5.96	3.85	11.15	35.78	11.87
Achnanthes sp.	.00	.00	.00	.00	.00	.00
Cocconeis pediculus	.00	.00	.00	.00	.00	.00
C. placentula	1.18	.27	.55	12.74	1.53	12.17
Rhoicosphenia curvata	.59	.54	.00	.00	.00	.00
Naviculales:						
Amphipleura pellucida	.00	.00	.00	.00	.00	.00
Amphora ovalis	.59	.00	.00	.00	.00	.00
Anomoeneis exilis	.00	.00	.00	.00	.00	.00
Cymbella affinis	16.27	10.30	17.03	.64	.00	.30
C. caespitosa	.00	.00	.00	.00	.00	.00
C. cistula	.30	.00	.00	.00	.00	.00
C. cymbiformis	.00	.00	.00	.00	.00	.00
C. gracilis	.00	.00	.00	.00	.00	.00

Table 19e. (Continued)

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
C. prostrata	.00	.00	.00	.00	.00	.00
C. sinuata	4.73	8.67	3.85	17.20	11.01	16.32
C. turgida	.00	.00	.00	.00	.00	1.78
C. ventricosa	1.78	1.36	3.85	.96	.31	1.78
Cymbella sp. A	.00	.00	.00	.00	.00	.00
Diploneis ovalis	.00	.00	.00	.00	.00	.00
Frustulia rhomboides	.00	.00	.00	.00	.00	.00
F. rhomboides var. *viridula*	.00	.00	.00	.00	.00	.00
Gomphonema geminatum	.00	.00	.00	.00	.00	.00
G. hebridenses	.00	.00	.00	.00	.00	.00
G. herculeanum	.00	.00	.27	.00	.00	.00
G. intricatum	8.28	4.88	5.77	.00	.00	.00
G. lanceolatum	.00	.00	.00	.00	.00	.00
G. olivaceoides	.00	.81	.55	.00	.00	.00
G. olivaceum	29.59	27.10	28.02	38.85	39.76	37.09
G. parvulum	.30	.54	.00	.00	.00	.00
G. parvulum var. *genuinum*	.00	.00	.00	.00	.00	.00
Gomphonema sp. A	.00	.00	.00	.00	.00	.00
Gyrosigma spencerii	.00	.00	.00	.00	.00	.00
Navicula arvensis	.00	.00	.00	.96	.61	.59
N. bicephala	.00	.27	.00	.00	.31	.00
N. capitata var. *hungarica*	.00	.00	.00	.00	.31	.30
N. cryptocephala	.00	.00	.00	.00	.00	.00
N. cuspidata	.00	.00	.00	.00	.00	.00

Table 19e. (Continued)

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
N. festiva	.00	.00	.00	.00	.00	.00
N. gottlandica	.00	.00	.00	.00	.00	.00
N. minima	.00	.00	.00	.00	.00	.00
N. muralis	.00	.00	.00	.00	.00	.00
N. pelliculosa	.00	.00	.00	.64	2.45	.89
N. pupula	.00	.00	.00	.00	.00	.00
N. radiosa	.00	.00	.00	.00	.00	.00
N. reinhardii	.00	.00	.00	.00	.00	.00
N. salinarum var. *intermedia*	3.55	2.44	1.37	2.55	2.14	2.97
N. tripunctata	.00	.00	.27	.00	.00	.00
N. viridula	.00	.00	.00	.00	.31	.00
Navicula sp.	2.07	.00	.27	.64	.31	1.48
Neidium binode	.00	.00	.00	.00	.00	.00
N. dubium	.00	.00	.00	.00	.00	.00
Neidium sp.	.00	.00	.00	.00	.00	.00
Stauroneis anceps	.00	.00	.00	.00	.00	.00
S. phoenicenteron	.00	.00	.00	.00	.00	.00
Surirellinees:						
Cymatopleura solea	.00	.00	.00	.00	.00	.00
Denticula elegans	.00	.00	.00	.00	.00	.00
Epithemia sorex	.00	.00	.00	.32	.00	.00
E. turgida	.00	.00	.00	.00	.00	.59
Nitzschia acicularis	.00	.00	.00	.32	.00	.30
N. actinastroides	.00	.00	.00	.00	.00	1.19
N. amphibia	.00	.00	.00	.00	.00	.00

Table 19e. (Continued)

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
N. angustata	.00	.00	.00	.00	.00	.00
N. dissipata	.89	2.44	4.12	2.23	.61	2.37
N. frustulum	.00	.00	.00	.00	.00	.00
N. linearis	.00	.00	.00	.00	.00	.00
N. palea	5.62	2.71	1.92	3.18	.92	1.48
Rhopalodia gibba	.00	.00	.00	.00	.00	.00
Surirella angustata	.00	.00	.27	.64	.00	.00
S. biseriata	.00	.00	.00	.00	.00	.00
S. ovata	.00	.27	.55	.64	.00	.00
Number of Species	22	25	29	21	18	21
Shannon-Wiener Index	3.41	3.53	3.59	2.91	2.27	3.03

Table 19f.

Percent numeric composition of periphytic diatoms from qualitative samples collected from the Flathead River on July 28, 1982.

Species	Station 2 Rock 4D	Station 3 Rock 3D
Coscinodiscales:		
Cyclotella glomerata	.00	.00
Eunotiales		
Eunotia sp.	.00	.00
Fragilariales:		
Asterionella formosa	.00	.00
Diatoma elongatum	.00	4.14
D. hiemale	.00	.49
D. hiemale var. *mesodon*	.43	.49
D. vulgare	.00	.49
Fragilaria capucina	.00	.00
F. construens	.00	.00
F. construens var. *binodis*	.00	.00
F. construens var. *venter*	.00	.00
F. crotonensis	.00	.00
F. heidenii	.21	.24
F. leptostauron	.21	.00
F. pinnata	.00	.00
F. producta	.00	.00
F. vaucheriae	1.93	.00
Hannaea arcus	8.80	3.16
H. arcus var. *amphioxys*	1.50	.97

Table 19f. (Continued)

Species	Station 2 Rock 4D	Station 3 Rock 3D
Meridion circulare	.00	.00
Synedra acus var. *radians*	.00	3.65
S. ulna	21.46	27.98
S. ulna var. *impressa*	.00	.00
S. ulna var. *oxyrhynchus*	.21	1.22
S. ulna var. *oxyrhynchus* f. *contracta*	.21	1.22
Tabellaria flocculosa	.00	.00
Achnanthales:		
Achnanthes flexella	.00	.00
A. lanceolata	1.07	.00
A. lemmermanni	.00	.00
A. minutissima	2.36	11.68
Achnanthes sp.	.00	.00
Cocconeis pediculus	.00	.00
C. placentula	.43	.97
Rhoicosphenia curvata	.00	.00
Naviculales:		
Amphipleura pellucida	.00	.00
Amphora ovalis	.00	.00
Anomoeneis exilis	.00	.00
Cymbella affinis	20.60	21.17
C. caespitosa	.00	.00
C. cistula	.21	.00
C. cymbiformis	.00	.00
C. gracilis	.00	.00

Table 19f. (Continued)

Species	Station 2 Rock 4D	Station 3 Rock 3D
C. prostrata	.00	.00
C. sinuata	3.65	2.19
C. turgida	.00	.00
C. ventricosa	1.50	3.16
Cymbella sp. A	.00	.00
Diploneis ovalis	.00	.00
Frustulia rhomboides	.00	.00
F. rhomboides var. *viridula*	.00	.00
Gomphonema geminatum	.00	.00
G. hebridenses	.00	.00
G. herculeanum	.00	.00
G. intricatum	.00	.00
G. lanceolatum	.00	.00
G. olivaceoides	.00	.00
G. olivaceum	11.16	5.84
G. parvulum	.43	.00
G. parvulum var. *genuinum*	.00	.00
Gomphonema sp. A	.00	.00
Gyrosigma spencerii	.00	.00
Navicula arvensis	.00	.00
N. bicephala	.00	.00
N. capitata var. *hungarica*	.00	.24
N. cryptocephala	.00	.00
N. cuspidata	.00	.00

Table 19f. (Continued)

Species	Station 2 Rock 4D	Station 3 Rock 3D
N. festiva	.00	.00
N. gottlandica	.00	.00
N. minima	.00	.00
N. muralis	.00	.00
N. pelliculosa	.00	.00
N. pupula	.00	.00
N. radiosa	.00	.00
N. reinhardii	.00	.00
N. salinarum var. *intermedia*	4.51	1.22
N. tripunctata	.43	.00
N. viridula	.00	.00
Navicula sp.	.86	.00
Neidium binode	.00	.00
N. dubium	.00	.00
Neidium sp.	.00	.00
Stauroneis anceps	.00	.00
S. phoenicenteron	.00	.00
Surirellinees:		
Cymatopleura solea	.00	.00
Denticula elegans	.00	.00
Epithemia sorex	.00	.00
E. turgida	.00	.00
Nitzschia acicularis	.21	.00
N. actinastroides	.00	.00
N. amphibia	.00	.00

Table 19f. (Continued)

Species	Station 2 Rock 4D	Station 3 Rock 3D
N. angustata	.00	.00
N. dissipata	10.30	5.35
N. frustulum	.00	.00
N. linearis	.00	.00
N. palea	7.30	4.14
Rhopalodia gibba	.00	.00
Surirella angustata	.00	.00
S. biseriata	.00	.00
S. ovata	.00	.00

Table 20a.

Percent numeric composition of periphytic diatoms on replicate plexiglass plates collected from five sites on August 4-5, 1976.

Species	Station 1		Station 2		Station 4		Station 7		Station 9	
	P3	P4	P5	P6	P1	P2	P7	P8	P9	P10
Bacillariophyceae Species										
Coscinodiscales:										
Cyclotella sp. A	0	0	0	0	0	0	0	0	0	0
Fragilariales:										
Asterionella formosa	0	0	0	0	0	0	0	0	0	0
Diatoma hiemale	0	0	3.6	3.1	0.6	0	3.0	0.7	1.7	0.8
D. hiemale var. *mesodon*	0	0	0	0	0	0	0	0	0	0
D. vulgare	1.3	0	0	0	0	0	0	0	0	0
Fragilaria capucina	0	0	0	0	0	0	0	0	0	0
F. construens	0	0	0	0	0	0	0	0	0	0
F. construens var. *binodis*	0	0	0	0	0	0	0	0	0	0
F. construens var. *venter*	0	0	0	0	0	0	1.5	0	0	0.3
F. leptostauron	0	0	0	3.1	0	0	0	0	0	0
F. producta	0	0	0	0	0	0	0	0	0	0
F. vaucheriae	0	0	0	0	2.9	3.1	0.7	0	0	1.2
Hannaea arcus	4.5	6.2	16.4	15.6	22.2	21.1	17.7	17.9	46.1	57.1
H. arcus var. *amphioxys*	0	0	0	0	0	0	0	0	0	0
Meridion circulare	0	0	0	3.1	0	0	0.7	2.7	0	0
Synedra ulna	1.3	0	69.1	31.3	0	0.8	8.9	11.3	13.6	3.3
S. ulna var. *impressa*	0	0	0	0	0	0	0	0	0	0
S. ulna var. *oxyrhynchus*	0	0	0	0	0	0	0	0	0	0
Achnanthales:										
Achnanthes flexella	0	0	0	0	0	0	0	0	0	0
A. lanceolata	0	8.2	0	0	1.2	0	0	0	1.0	1.6
A. lemmermanni	0	0	0	0	0	0	0	0	0	0

Table 20a. (Continued)

Species	Station 1		Station 2		Station 4		Station 7		Station 9	
	P3	P4	P5	P6	P1	P2	P7	P8	P9	P10
A. minutissima	4.5	12.4	0	4.7	18.1	15.6	20.3	10.3	9.5	11.4
Achnanthes sp. A	0	0	0	0	0	0	0	0	0	0
Achnanthes sp. B	0	0	0	0	0	0	0	0	0	0
Achnanthes sp. C	0	0	0	0	0	0	0	0	0	0
Cocconeis pediculus	0	0	0	0	0	0	0	0	0	0
C. placentula	39.1	22.7	0	0	2.3	0.8	1.9	1.0	1.0	1.1
Rhoicosphenia curvata	0	0	0	0	0	0	0	0	0	0
Naviculales:										
Amphipleura pellucida	0	0	0	0	0	0	0	0	0	0
Amphora ovalis	0	0	0	0	0	0	0	0	0	0
Cymbella affinis	0	0	0	0	0	0	0	0	0	0
C. caespitosa	2.5	2.1	0	3.1	8.2	4.7	7.4	13.4	0.3	1.4
C. cistula	0	0	0	0	0	0	0	0.7	0	0
C. cymbiformis	0	0	0	0	0	0	0	0	0	0
C. gracilis	0	0	0	0	0	0	0	0	0	0
C. prostrata	0	0	0	0	0	0	0	0	0	0
C. sinuata	0	0	0	0	0	0	0	0	0	0
C. turgida	0	0	0	3.1	2.3	0	1.5	0	0	0
C. ventricosa	1.3	0	0	6.3	9.9	10.9	3.7	1.4	2.0	0.6
Cymbella sp. A	0	0	0	0	0	0	0	0	0	0
Diploneis ovalis	0	0	0	0	0	0	0	0	0	0
Frustulia rhomboides	0	0	0	0	0	0	0	0	0	0
F. rhomboides var. *viridula*	0	0	0	0	0	0	0	0	0	0
Gomphonema geminatum	0	0	0	0	0	1.6	1.1	0	0	0

Table 20a. (Continued)

Species	Station 1		Station 2		Station 4		Station 7		Station 9	
	P3	P4	P5	P6	P1	P2	P7	P8	P9	P10
G. hebridenses	0	0	0	0	0	0	0	0	0	0
G. herculeanum	1.3	0	0	0	0	0	0	1.4	0	0.6
G. intricatum	0	0	0	0	0	0	0	0	0	0
G. lanceolatum	0	0	0	0	0	0	0	0	0	0
G. olivaceum	1.3	0	0	0	1.2	0	0.7	0.7	0	1.5
G. parvulum	37.8	44.3	10.9	18.8	28.7	39.8	3.3	9.6	13.6	17.2
G. parvulum var. *genuinum*	0	0	0	0	0	0	0	0	0	0
Gomphonema sp. A	0	0	0	0	0	0	0	0	0	0
Gyrosigma spencerii	0	0	0	0	0	0	0	0	0	0
Navicula bicephala	0	0	0	0	0	0	0	0	0	0
N. cryptocephala	0	0	0	0	0	0	0	0	0	0
N. cuspidata	0	0	0	0	0	0	0	0	0	0
N. festiva	0	0	0	0	0	0	0	0	0	0
N. gottlandica	0	0	0	0	0	0	0	0	0	0
N. minima	0	0	0	0	0	0	0	0	0	0
N. muralis	0	0	0	0	0	0	3.7	0.7	0.5	0
N. pupula	0	0	0	0	0	0	0.7	0	0	0
N. radiosa	0	0	0	0	0	0	0	0	0	0
N. reinhardii	0	0	0	0	0	0	0	0	0	0
N. salinarum var. *intermedia*	0	0	0	1.6	0	0	2.2	2.7	0	0
N. tripunctata	0	0	0	0	0	0	0	0	0	0
Navicula sp. A	0	0	0	0	0	0	0	0	0.5	0
Navicula sp. B	0	2.1	0	0	0	0	0	0	0	0

Table 20a. (Continued)

Species	Station 1		Station 2		Station 4		Station 7		Station 9	
	P3	P4	P5	P6	P1	P2	P7	P8	P9	P10
Neidium bisode	0	0	0	0	0	0	0	0	0	0
N. dubium	0	0	0	0	0	0	0	0	0	0
Stauroneis anceps	0	0	0	0	0	0	0	0	0	0
S. phoenicenteron	0	0	0	0	0	0	0	0	0	0
Surirellinees:										
Cymatopleura solea	0	0	0	0	0	0	0	0	0	0
Epithemia sorex	0	0	0	0	0	0	0	0	0	0
E. turgida	0	0	0	0	0	0	0	0	0	0
Nitzschia acicularis	0	0	0	0	0	0	0.7	0	0	0
N. amphibia	0	0	0	0	0	0	0	0	0	0
N. angustata	0	0	0	0	0	0	0	0	0	0
N. dissipata	0	0	0	0	0	0	4.8	0.7	0	0
N. frustulum	0	0	0	0	0	0	0.7	0	0.7	0
N. linearis	0	0	0	3.1	0	0	0.7	0	0	0
N. palea	5.1	2.1	0	3.1	2.3	1.6	14.0	24.7	9.5	1.9
Rhopalodia gibba	0	0	0	0	0	0	0	0	0	0
Surirella angustata	0	0	0	0	0	0	0	0	0	0
S. biseriata	0	0	0	0	0	0	0	0	0	0
S. ovata	0	0	0	0	0	0	0	0	0	0

Table 20b.

Percent numeric composition of periphytic diatoms on replicate plexiglass plates collected from seven sites on September 11-12, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	P104	P105	P108	P109	P100	P101	P102	P103	P110	P111	P114	P115	P112	P113
Bacillariophyceae Species														
Coscinodiscales:														
Cyclotella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilariales:														
Asterionella formosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diatoma hiemale	0	0	0	0	0	0	0	2.2	0	0	0.7	0	1.1	0
D. hiemale var. *mesodon*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D. vulgare	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilaria capucina	0	0	0	0	0	0	0	0	0	0	0	0	0.7	0
F. construens	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens var. *binodis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. construens var. *venter*	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0
F. leptostauron	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. producta	0	0	0	0	0	0	0	0	0	0	0	0.8	0	0
F. vaucheriae	1.1	0	0	0	3.2	0	0	0	1.1	0.5	0	0	0.4	0
Hannaea arcus	1.7	0	0	11.8	0	0	0	0	5.5	0	0	20.4	1.6	0
H. arcus var. *amphioxys*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meridion circulare	0	0	0	0	0	0	0	0	0	0	1.0	0	0.6	0
Synedra ulna	1.3	1.0	0	17.6	1.8	0	4.2	0	0	1.9	0.7	7.5	0.2	0
S. ulna var. *impressa*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ulna var. *oxyrhynchus*	0	0	0	0	0	2.3	0	0	7.6	0	0	2.4	0	0
Achnanthales:														
Achnanthes flexella	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A. lanceolata	1.7	1.0	0	0	1.8	1.2	0	4.4	4.4	4.6	1.0	2.4	1.9	3.5
A. lemmermanni	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 20b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	P104	P105	P108	P109	P100	P101	P102	P103	P110	P111	P114	P115	P112	P113
A. minutissima	9.0	0	0	5.9	3.9	0	0	25.3	1.1	3.0	0.7	41.2	36.5	0
Achnanthes sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthes sp. B	0.8	0	0	0	0	0	0	0	1.1	0	0	0.8	0	0
Achnanthes sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cocconeis pediculus	0	0	0	0	7.9	1.2	0	0	0	0	0	0	0	0
C. placentula	51.9	96.0	0	23.5	72.4	93.1	12.5	23.1	34.6	61.2	87.9	4.4	10.6	87.6
Rhoicosphenia curvata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naviculales:														
Amphipleura pellucida	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Amphora ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cymbella affinis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. caespitosa	0.9	0	0	0	1.8	0	0	10.1	1.1	0.5	0.7	3.2	0.6	0
C. cistula	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0
C. cymbiformis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. gracilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. prostrata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. sinuata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. turgida	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C. ventricosa	0	0	0	0	0	0	0	6.6	0	0	0.7	0	0.7	1.2
Cymbella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diploneis ovalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Frustulia rhomboides	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F. rhomboides var. *viridula*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema geminatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 20b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	P104	P105	P108	P109	P100	P101	P102	P103	P110	P111	P114	P115	P112	P113
G. hebridenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. herculeanum	0	0	0	0	0	0	0	0	1.1	0	0.7	0.8	0.2	0
G. intricatum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. lanceolatum	0	0	0	0	0	0	0	2.2	0	0	0	0	0	0
G. olivaceum	21.6	1.0	0	35.3	7.9	2.3	83.3	18.7	12.6	17.8	0	0.8	22.9	7.6
G. parvulum	7.9	0	0	0	0	0	0	2.2	28.0	9.4	2.8	4.4	20.1	0
G. parvulum var. *genuinum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gomphonema sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gyrosigma spencerii	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula bicephala	0	0	0	0	0	0	0	0	0	0	0.3	0.8	0	0
N. cryptocephala	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. cuspidata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. festiva	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. gottlandica	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. minima	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. muralis	0.2	0	0	0	0	0	0	2.2	0.5	0	0	0.4	0	0
N. pupula	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. radiosa	0	0	0	0	0	0	0	0	0	0	0.7	0	0	0
N. reinhardii	0	0	0	0	0	0	0	0	0	0	0	0.8	0	0
N. salinarum var. *intermedia*	0	0	0	0	0	0	0	0	0	0	0	0.4	0	0
N. tripunctata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navicula sp. A	0	0	0	0	0	0	0	2.2	0	0	0	0	0	0
Navicula sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 20b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	P104	P105	P108	P109	P100	P101	P102	P103	P110	P111	P114	P115	P112	P113
Neidium binode	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dubium	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stauroneis anceps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. phoenicenteron	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirellinees:														
Cymatopleura solea	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epithemia sorex	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E. turgida	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nitzschia acicularis	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. amphibia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. angustata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. dissipata	0	1.0	100.0	0	0	0	0	0	0	1.1	1.4	1.6	0.4	0
N. frustulum	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0
N. linearis	0	0	0	5.9	0	0	0	0	0	0	0.7	2.4	0.2	0
N. palea	0.9	0	0	0	0	0	0	0	1.1	0	0	3.6	1.1	0
Rhopalodia gibba	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirella angustata	0	0	0	0	0	0	0	0	0	0	0	0.8	0	0
S. biseriata	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S. ovata	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 21a.

Shannon-Wiener diversities (H') of periphytic diatoms on rock subsamples collected from eight sites in the Flathead River Basin, April-September, 1976.

Station Number	April 10-12		June 14-15		August 4-5		September 11-12	
	Sample Number	H'	Sample Number	H'	Sample Number	H'	Sample Number	H'
1	R102	1.688	R005	1.683	R5	1.371	R104	2.772
	R103	1.000	R006	3.108	R6	2.606	R105	3.614
2	R106	2.482	R003	3.410	R7	3.820	R108	3.219
	R107	0	R004	3.357	R8	3.736	R109	3.754
3	R108	1.135	R110	2.243	R3	0.863	R100	2.152
	R109	0.198	R111	2.644	R4	2.674	R101	3.954
4	R112	1.000	R008	1.724	R1	1.379	R102	1.823
	R113	0.722	R009	2.060	R2	2.418	R103	0
5	R114	3.435	R001	1.406	R9	3.903	R110	3.692
	R115	2.530	R002	2.898	R10	3.663	R111	2.450
6	R116	1.973	NOT SAMPLED		R11	2.068	R106	1.000
	R117	0			R12	1.918	R107	2.289
7	R118	3.370	R020	3.023	R13	1.837	R114	2.716
	R119	2.987	R021	2.405	R14	3.371	R115	4.144
9	NOT SAMPLED		R022	1.868	R15	2.737	R112	3.039
			R023	1.705	R16	1.534	R113	1.460

Table 21b.

Shannon-Wiener diversities (H') of periphytic diatoms on whole rocks collected from eight sites in the Flathead River Basin, April-September, 1976.

Station Number	April 10-12		August 4-5		September 11-12	
	Sample Number	H'	Sample Number	H'	Sample Number	H'
1	W104	0	W5	1.485	W104	3.064
	W105	1.614	W6	3.433	W105	3.312
2	NOT SAMPLED		W7	3.546	W108	4.078
			W8	3.764	W109	4.056
3	W110	3.007	W3	3.137	W100	3.223
	W111	2.104	W4	3.530	W101	3.668
4	NOT SAMPLED		W1	2.709	W102	2.044
			W2	2.794	W103	2.315
5	NOT SAMPLED		W9	3.949	W110	3.942
			W10	3.768	W111	3.672
6	NOT SAMPLED		NOT SAMPLED		W106	3.790
					W107	3.201
7	NOT SAMPLED		W11	3.711	W114	4.098
			W12	3.550	W115	3.917
9	NOT SAMPLED		W13	3.390	W112	3.684
			W14	3.303	W113	3.623

Table 21c.

Shannon-Wiener diversities (H') of periphytic diatoms on plexiglass plates collected from seven sites in the Flathead River Basin, August-September, 1976.

Station Number	August 4-5		September 11-12	
	Sample Number	H'	Sample Number	H'
1	P3	2.220	P104	2.193
	P4	2.270	P105	0.320
2	P5	1.317	P108	0
	P6	3.038	P109	2.308
3	NOT SAMPLED		P100	1.538
			P101	0.500
4	P1	2.795	P102	0.785
	P2	2.430	P103	2.854
5	NOT SAMPLED		P110	2.599
			P111	1.810
6	NOT SAMPLED		NOT SAMPLED	
7	P7	3.614	P114	0.953
	P8	3.120	P115	2.942
9	P9	2.440	P112	2.498
	P10	2.117	P113	0.693

Table 22a.

Live (with chloroplasts) and dead (without chloroplasts) phytoplankton concentrations (cells ml^{-1}) from seven sites sampled April 10-12, 1976. Species that are typically periphytic are indicated with a asterisk (*), those typically planktonic with a circle (o), and those equally important in both habitats with a plus-minus (±).

	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7	
	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead
Diatoms:														
* *Achnanthes lanceolata*	0	287	0	0	0	72	0	108	0	323	0	72	0	143
* *A. minutissima*	0	753	11	126	0	538	0	1506	0	860	0	466	72	681
* *Achnanthes* sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Achnanthes* sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Amphipleura pellucida*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Amphora ovalis*	0	72	0	11	0	0	0	0	0	0	0	0	0	0
* *Cocconeis pediculus*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *C. placentula*	0	143	0	57	0	215	0	72	143	323	0	143	0	359
* *Cymatopleura solea*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Cymbella caespitosa*	72	287	11	46	0	430	0	251	0	0	0	0	0	359
* *C. sinuata*	0	0	0	34	0	0	0	0	0	0	0	0	0	0
* *C. turgida*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *C. ventricosa*	72	72	11	57	0	287	0	72	0	179	72	36	0	72
± *Diatoma hiemale*	143	502	160	46	0	0	0	36	0	287	72	143	430	538
* *D. tenue*	0	0	0	0	0	574	0	0	0	0	0	0	0	0
* *D. vulgare*	0	0	0	0	0	0	0	0	0	72	0	0	0	72
* *Epithemia sorex*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *E. turgida*	0	0	0	0	0	0	0	0	0	143	0	36	0	0
* *Eunotia pectinalis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Fragilaria capucina*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *F. construens*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *F. construens* var. *binodis*	0	0	0	23	0	72	0	0	0	0	0	0	0	0
* *F. construens* var. *venter*	0	574	0	0	0	0	0	215	0	0	0	0	359	72

Table 22a. (Continued)

	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7	
	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead
* *F. leptostauron*	0	0	0	0	0	0	0	0	0	0	0	0	72	0
* *F. vaucheriae*	72	72	0	0	0	72	0	0	0	0	0	143	0	72
* *Frustulia rhomboides*	0	0	0	0	0	0	0	0	0	0	0	72	645	0
* *Gomphonema geminatum*	0	0	0	0	0	0	0	0	0	72	0	0	0	36
* *G. herculeanum*	0	108	0	0	0	0	0	0	0	72	0	0	0	0
* *G. lanceolatum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *G. olivaceum*	72	538	0	138	0	609	0	1040	143	717	0	72	0	359
* *G. parvulum*	143	1326	11	183	72	753	0	287	215	1577	0	359	0	681
* *G. parvulum* var. *genuinum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Gyrosigma kützingii*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Hannaea arcus*	72	287	103	297	0	323	0	215	0	394	0	72	359	860
* *H. arcus* var. *amphioxys*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Melosira varians*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Meridion circulare*	72	179	0	126	0	323	0	0	0	215	0	108	574	143
* *Navicula bergii*	0	0	0	0	0	0	0	36	0	0	0	0	0	0
* *N. bicephala*	0	0	0	0	0	0	0	0	0	0	0	0	0	36
* *N. cryptocephala*	0	0	0	0	0	0	0	0	0	0	0	36	0	0
* *N. muralis*	0	36	0	0	0	0	0	0	0	0	0	0	0	0
* *N. pupula*	0	0	0	0	0	0	72	0	0	0	0	0	0	72
* *N. radiosa*	0	0	0	23	0	0	0	0	0	0	0	0	0	0
* *N. salinarum* var. *intermedia*	0	36	11	0	0	72	0	36	0	36	72	143	0	36
* *N. tripunctata*	0	0	0	0	0	0	0	0	0	0	0	108	0	0
* *Navicula* sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Navicula* sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Navicula* sp. C	0	0	0	34	0	0	0	0	0	0	0	0	0	0
* *Navicula* sp. X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Neidium affine*	0	0	0	11	0	0	0	0	0	0	0	0	0	0

Table 22a. (Continued)

	Station 1 Live	Station 1 Dead	Station 2 Live	Station 2 Dead	Station 3 Live	Station 3 Dead	Station 4 Live	Station 4 Dead	Station 5 Live	Station 5 Dead	Station 6 Live	Station 6 Dead	Station 7 Live	Station 7 Dead
* *N. incurvum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Nitzschia acicularis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *N. dissipata*	0	143	11	11	0	0	0	0	0	72	0	143	0	108
* *N. frustulum*	0	72	0	0	0	72	0	0	0	0	0	0	0	0
* *N. linearis*	0	0	0	0	0	0	0	0	0	0	0	0	0	143
* *N. palea*	0	430	0	275	0	789	0	215	0	609	0	717	0	430
* *Pinnularia subrostrata*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Rhoicosphenia curvata*	0	72	0	0	0	143	0	0	143	179	72	0	0	0
o *Stephanodiscus astraea* var. *minutula*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Surirella angustata*	0	0	0	0	0	72	0	0	0	0	72	143	0	72
* *Synedra ulna*	0	143	11	69	0	287	0	143	0	179	0	251	0	574
* *S. ulna* var. *oxyrhynchus*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorophyta:														
o cf. *Chlamydomonas*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Mougeotia* sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cyanophyta:														
* *Nostoc* sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Oscillatoria* sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophyta:														
* Order Chrysosaccales-like	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Xanthophyta:														
* Order Vaucheriales	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of taxa:	8	21	9	18	1	18	1	14	4	18	5	19	7	22
% of total cells with chloroplasts:	10.5		18.0		1.2		1.7		10.2		9.9		29.8	

Table 22b.

Live (with chloroplasts) and dead (without chloroplasts) phytoplankton concentrations (cells ml^{-1}) from seven sites sampled June 14-15, 1976. Species that are typically periphytic are indicated with a asterisk (*), those typically planktonic with a circle (o), and those equally important in both habitats with a plus-minus (±).

	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead
Diatoms:														
* *Achnanthes lanceolata*	0	0	0	0	0	23	0	0	0	34	0	0	0	0
* *A. minutissima*	143	287	72	287	34	29	11	194	0	57	0	160	0	17
* *Achnanthes* sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Achnanthes* sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Amphipleura pellucida*	0	0	0	0	0	0	0	0	0	0	0	11	0	0
* *Amphora ovalis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Cocconeis pediculus*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *C. placentula*	0	72	0	0	0	0	0	0	0	11	0	17	0	11
* *Cymatopleura solea*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Cymbella caespitosa*	72	108	72	215	0	0	0	0	0	0	0	23	11	11
* *C. sinuata*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *C. turgida*	0	0	0	0	0	11	0	0	0	0	0	0	0	0
* *C. ventricosa*	0	0	143	215	0	0	0	11	0	11	34	0	0	0
± *Diatoma hiemale*	0	0	215	215	0	29	0	46	0	34	11	11	0	23
* *D. tenue*	0	0	0	0	0	0	0	0	0	0	0	17	0	0
* *D. vulgare*	0	0	143	0	0	0	0	0	0	0	0	0	11	0
* *Epithemia sorex*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *E. turgida*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Eunotia pectinalis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Fragilaria capucina*	0	0	0	0	0	0	0	0	0	0	0	0	0	34
* *F. construens*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *F. construens* var. *binodis*	0	0	0	0	0	0	0	23	0	0	0	11	0	0
* *F. construens* var. *venter*	287	143	0	0	0	0	92	23	0	0	0	0	0	0

Table 22b. (Continued)

	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead
* *F. leptostauron*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *F. vaucheriae*	0	0	0	0	11	0	0	0	0	23	0	23	0	0
* *Frustulia rhomboides*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Gomphonema geminatum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *G. herculeanum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *G. lanceolatum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *G. olivaceum*	0	215	143	143	46	57	0	46	11	51	0	34	0	23
* *G. parvulum*	287	359	287	609	23	103	34	166	23	194	0	137	46	114
* *G. parvulum* var. *genuinum*	0	0	0	0	0	0	0	0	0	0	0	34	0	0
* *Gyrosigma kützingii*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Hannaea arcus*	215	359	287	1219	11	263	23	80	46	109	23	360	11	297
* *H. arcus* var. *amphioxys*	0	0	0	0	0	29	11	0	0	46	0	80	0	17
* *Melosira varians*	0	0	0	0	0	0	0	23	0	0	0	0	0	0
* *Meridion circulare*	0	251	0	72	23	34	0	0	46	69	0	57	11	23
* *Navicula bergii*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *N. bicephala*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *N. cryptocephala*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *N. muralis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *N. pupula*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *N. radiosa*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *N. salinarum* var. *intermedia*	0	0	0	36	0	11	0	0	0	0	0	23	0	0
* *N. tripunctata*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Navicula* sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Navicula* sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Navicula* sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Navicula* sp. X	0	0	0	0	0	0	0	0	0	11	0	0	0	0
* *Neidium affine*	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 22b. (Continued)

	Station 1 Live	Station 1 Dead	Station 2 Live	Station 2 Dead	Station 3 Live	Station 3 Dead	Station 4 Live	Station 4 Dead	Station 5 Live	Station 5 Dead	Station 7 Live	Station 7 Dead	Station 9 Live	Station 9 Dead
* *N. incurvum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Nitzschia acicularis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *N. dissipata*	0	0	0	143	0	0	0	0	0	0	0	23	0	11
* *N. frustulum*	0	0	0	0	0	0	0	0	0	11	0	0	0	0
* *N. linearis*	0	0	0	0	11	0	0	0	0	11	0	0	0	0
* *N. palea*	0	143	0	0	0	23	0	23	0	46	0	57	0	23
* *Pinnularia subrostrata*	0	0	0	0	0	0	0	11	0	0	0	0	0	0
* *Rhoicosphenia curvata*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
o *Stephanodiscus astraea* var. *minutula*	0	0	0	72	0	0	0	0	0	0	0	0	0	23
* *Surirella angustata*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Synedra ulna*	0	0	0	0	23	0	0	0	0	11	0	0	0	0
* *S. ulna* var. *oxyrhynchus*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorophyta:														
o cf. *Chlamydomonas*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Mougeotia* sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cyanophyta:														
* *Nostoc* sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Oscillatoria* sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophyta:														
* Order Chrysosaccale-like	0	0	0	0	0	0	0	0	446	0	0	0	0	0
Xanthophyta:														
* Order Vaucheriales	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of taxa:	5	9	8	11	8	11	5	11	5	16	3	17	5	13
% of total cells with chloroplasts:	34.1		29.7		23.0		21.0		[illegible]		6.0		12.7	

Table 22c.

Live (with chloroplasts) and dead (without chloroplasts) phytoplankton concentrations (cells ml^{-1}) from eight sites sampled August 4-5, 1976. Species that are typically periphytic are indicated with a asterisk (*), those typically planktonic with a circle (o), and those equally important in both habitats with a plus-minus (±).

	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead
Diatoms:																
* *Achnanthes lanceolata*	0	46	0	11	0	0	0	0	0	29	0	23	0	0	0	34
* *A. minutissima*	0	46	11	69	11	46	0	469	0	223	29	63	11	46	0	120
* *Achnanthes* sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Achnanthes* sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Amphipleura pellucida*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Amphora ovalis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
* *Cocconeis pediculus*	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0
* *C. placentula*	0	23	0	40	23	126	11	69	11	92	11	103	0	57	0	23
* *Cymatopleura solea*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Cymbella caespitosa*	0	29	11	74	0	29	0	57	23	34	11	11	11	17	0	80
* *C. sinuata*	0	0	0	0	0	23	0	51	0	23	0	0	0	0	0	0
* *C. turgida*	0	0	0	0	0	0	0	0	0	0	11	11	0	0	0	0
* *C. ventricosa*	0	11	0	57	0	11	23	17	0	34	0	57	0	11	11	11
± *Diatoma hiemale*	0	0	0	11	0	0	11	11	0	11	0	11	0	11	0	34
* *D. tenue*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *D. vulgare*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Epithemia sorex*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *E. turgida*	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0
* *Eunotia pectinalis*	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Fragilaria capucina*	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *F. construens*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *F. construens* var. *binodis*	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *F. construens* var. *venter*	0	0	0	34	0	57	0	0	0	0	0	0	0	0	34	0
* *F. leptostauron*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11

Table 22c. (Continued)

	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead
* *F. vaucheriae*	0	23	0	0	0	0	0	0	0	23	0	0	0	0	0	0
* *Frustulia rhomboides*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Gomphonema geminatum*	0	0	0	11	0	0	0	0	0	11	0	0	0	0	0	11
* *G. herculeanum*	0	0	0	0	0	0	0	0	11	11	0	0	0	0	0	0
* *G. lanceolatum*	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0
* *G. olivaceum*	132	0	0	57	0	0	0	97	0	149	0	69	11	92	0	69
* *G. parvulum*	0	80	11	126	0	240	11	80	0	114	11	114	23	97	11	92
* *G. parvulum* var. *genuinum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Gyrosigma kützingii*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Hannaea arcus*	0	23	11	194	34	92	46	149	23	23	0	229	46	378	0	263
* *H. arcus* var. *amphioxys*	0	29	0	11	0	0	0	34	0	0	0	34	0	0	0	0
* *Melosira varians*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Meridion circulare*	0	0	0	0	0	11	0	0	0	0	0	11	0	34	0	0
* *Navicula bergii*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *N. bicephala*	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0
* *N. cryptocephala*	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0
* *N. muralis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
* *N. pupula*	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	11
* *N. radiosa*	0	0	0	0	0	0	0	0	11	11	0	0	0	23	0	0
* *N. salinarum* var. *intermedia*	0	0	0	0	0	11	0	0	0	0	0	34	11	0	0	0
* *N. tripunctata*	0	0	0	0	0	0	0	0	0	0	11	11	0	0	0	0
* *Navicula* sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0
* *Navicula* sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
* *Navicula* sp. C	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0
* *Navicula* sp. X	0	0	0	34	0	0	0	0	0	0	0	0	0	0	0	0
* *Neidium affine*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *N. incurvum*	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 22c. (Continued)

	Station 1 Live	Station 1 Dead	Station 2 Live	Station 2 Dead	Station 3 Live	Station 3 Dead	Station 4 Live	Station 4 Dead	Station 5 Live	Station 5 Dead	Station 6 Live	Station 6 Dead	Station 7 Live	Station 7 Dead	Station 9 Live	Station 9 Dead
* *Nitzschia acicularis*	0	11	0	0	0	23	0	0	0	11	0	0	0	0	0	0
* *N. dissipata*	0	11	0	23	0	0	0	0	0	11	11	57	0	0	0	23
* *N. frustulum*	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0
* *N. linearis*	0	0	0	0	0	0	0	0	0	34	0	0	0	0	0	0
* *N. palea*	0	69	23	46	23	80	0	34	0	114	34	92	0	11	11	92
* *Pinnularia subrostrata*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Rhoicosphenia curvata*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
o *Stephanodiscus astraea* var. *minutula*	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0
* *Surirella angustata*	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0
* *Synedra ulna*	0	0	57	92	0	69	0	0	0	0	11	23	0	0	11	17
* *S. ulna* var. *oxyrhynchus*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Chlorophyta:																
o cf. *Chlamydomonas*	34	0	63	0	11	0	6	0	6	0	0	0	0	0	126	0
* *Mougeotia* sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cyanophyta:																
* *Nostoc* sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Oscillatoria* sp.	0	0	6[a]	0	0	0	0	0	0	0	11[c]	0	0	0	0	0
Chrysophyta:																
* Order Chrysosaccales-like	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Xanthophyta:																
* Order Vaucheriales	0	0	6[b]	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of taxa:	1	17	9	17	6	18	6	11	7	18	11	17	6	14	6	19
% of total cells with chloroplasts:	5.5		18.2		11.5		9.2		9.2		14.6		12.3		17.9	

a filament length = 13 um

b filament length = 450 um

c filament length = 60 um

Table 22d.

Live (with chloroplasts) and dead (without chloroplasts) phytoplankton concentrations (cells ml^{-1}) from eight sites sampled September 11-12, 1976. Species that are typically periphytic are indicated with a asterisk (*), those typically planktonic with a circle (o), and those equally important in both habitats with a plus-minus (±).

	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead
Diatoms:																
* *Achnanthes lanceolata*	0	34	0	23	0	0	0	0	0	0	0	34	0	0	0	0
* *A. minutissima*	0	80	34	109	0	34	11	492	0	114	0	206	11	275	11	137
* *Achnanthes* sp. A	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0
* *Achnanthes* sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	46	0	0
* *Amphipleura pellucida*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Amphora ovalis*	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11
* *Cocconeis pediculus*	0	0	0	0	11	23	0	0	0	11	0	0	0	0	11	0
* *C. placentula*	69	46	34	97	69	183	0	69	11	229	69	143	11	80	57	126
* *Cymatopleura solea*	0	0	0	0	11	0	0	0	0	0	11	0	0	0	0	0
* *Cymbella caespitosa*	0	23	11	29	0	0	11	23	11	34	0	11	0	57	0	11
* *C. sinuata*	0	0	0	0	0	23	0	0	0	23	0	11	0	0	0	34
* *C. turgida*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *C. ventricosa*	0	11	23	17	0	57	0	34	11	11	0	23	23	11	11	0
± *Diatoma hiemale*	0	0	0	0	0	0	11	11	0	0	0	0	0	0	0	0
* *D. tenue*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *D. vulgare*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Epithemia sorex*	0	23	0	23	0	23	0	11	0	0	0	0	0	23	0	11
* *E. turgida*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0
* *Eunotia pectinalis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Fragilaria capucina*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *F. construens*	0	0	0	0	0	0	0	34	0	0	0	0	0	0	0	0
* *F. construens* var. *binodis*	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *F. construens* var. *venter*	0	0	0	23	0	11	0	0	0	0	0	0	0	0	0	0
* *F. leptostauron*	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0

Table 22d. (Continued)

	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead
* *F. vaucheriae*	0	0	0	0	0	11	11	11	0	23	11	0	0	0	0	0
* *Frustulia rhomboides*	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0
* *Gomphonema geminatum*	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0
* *G. herculeanum*	0	0	0	11	0	23	0	0	0	0	0	0	0	0	0	0
* *G. lanceolatum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *G. olivaceum*	0	69	0	69	0	0	0	46	0	103	11	80	11	34	0	34
* *G. parvulum*	0	0	0	80	0	57	46	103	11	34	0	34	0	69	0	57
* *G. parvulum* var. *genuinum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Gyrosigma kützingii*	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Hannaea arcus*	0	80	0	92	0	46	0	34	0	23	23	34	0	69	0	40
* *H. arcus* var. *amphioxys*	0	0	0	0	0	0	0	0	0	0	11	17	0	23	0	0
* *Melosira varians*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Meridion circulare*	0	46	0	23	0	11	0	0	0	0	0	11	0	23	0	0
* *Navicula bergii*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *N. bicephala*	0	0	0	6	0	0	0	0	0	0	11	0	0	0	0	0
* *N. cryptocephala*	0	0	11	0	0	0	0	0	0	0	0	0	0	23	0	0
* *N. muralis*	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *N. pupula*	0	23	0	0	0	11	0	0	0	0	0	0	0	0	0	0
* *N. radiosa*	0	0	0	0	0	0	0	0	0	0	0	69	0	0	0	0
* *N. salinarum* var. *intermedia*	11	11	0	80	0	23	0	0	0	46	0	11	0	57	23	0
* *N. tripunctata*	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0
* *Navicula* sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Navicula* sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Navicula* sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Navicula* sp. X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Neidium affine*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *N. incurvum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 22d. (Continued)

	Station 1 Live	Station 1 Dead	Station 2 Live	Station 2 Dead	Station 3 Live	Station 3 Dead	Station 4 Live	Station 4 Dead	Station 5 Live	Station 5 Dead	Station 6 Live	Station 6 Dead	Station 7 Live	Station 7 Dead	Station 9 Live	Station 9 Dead
* *Nitzschia acicularis*	11	0	11	0	11	0	0	0	0	0	0	0	0	0	11	0
* *N. dissipata*	11	0	0	23	0	11	0	0	0	11	0	0	0	23	0	0
* *N. frustulum*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *N. linearis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0
* *N. palea*	0	34	23	160	11	34	11	23	0	69	0	11	0	46	11	11
* *Pinnularia subrostrata*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Rhoicosphenia curvata*	0	0	11	0	0	0	0	0	0	0	0	11	0	0	0	0
o *Stephanodiscus astraea* var. *minutula*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Surirella angustata*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* *Synedra ulna*	11	11	34	11	34	0	0	0	0	92	23	11	0	34	23	0
* *S. ulna* var. *oxyrhynchus*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0
Chlorophyta:																
o cf. *Chlamydomonas*	0	0	51	29	6	0	0	0	0	0	0	0	0	0	0	0
* *Mougeotia* sp. A	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0
Cyanophyta:																
* *Nostoc* sp.	0	0	0	0	6[b]	0	0	0	6[c]	0	0	0	0	0	0	0
* *Oscillatoria* sp.	0	0	11[a]	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophyta:																
* Order Chrysosaccales-like	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Xanthophyta:																
* Order Vaucheriales	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of taxa:	5	16	11	20	10	17	6	12	5	15	8	16	4	17	11	10
% of total cells with chloroplasts:	18.0		21.2		23.0		10.3		5.8		19.2		6.0		30.2	

a filament length = 10 um and 66 um

b filament length = 120 um

c filament length = 20 um

Table 22e.

Live (with chloroplasts) and dead (without chloroplasts) phytoplankton concentrations (cells ml^{-1}) from two sites sampled July 28, 1982. Species that are typically periphytic are indicated with a asterisk (*), those typically planktonic with a circle (o), and those equally important in both habitats with a plus-minus (±).

	Station 2				Station 3			
	Sample 1 Live	Sample 1 Dead	Sample 2 Live	Sample 2 Dead	Sample 1 Live	Sample 1 Dead	Sample 2 Live	Sample 2 Dead
Diatoms:								
* *Achnanthes lanceolata*	0	0	1	0	L1	0	0	0
* *A. minutissima*	8	1	12	0	3	0	4	L1
* *Achnanthes* sp. A	0	0	0	0	0	0	0	0
* *Achnanthes* sp. B	0	0	0	0	0	0	0	0
* *Amphipleura pellucida*	0	0	0	0	0	0	L1	0
* *Amphora ovalis*	1	0	2	0	L1	0	0	0
* *Anomoeneis exilis*	0	0	0	0	1	0	L1	0
* *Cocconeis pediculus*	0	0	0	0	0	0	0	0
* *C. placentula*	L1	0	0	0	1	L1	2	1
* *Cymatopleura solea*	0	0	0	0	0	0	0	0
* *Cymbella caespitosa*	0	0	0	0	0	0	0	0
* *C. sinuata*	1	0	L1	L1	0	0	0	0
* *C. turgida*	L1	0	0	0	0	0	0	0
* *C. ventricosa*	5	L1	6	L1	3	L1	2	L1
± *Diatoma elongatum*	L1	0	0	0	9	2	6	1
± *Diatoma hiemale*	0	0	0	0	0	0	0	0
* *Diatoma hiemale* var. *mesodon*	0	0	0	0	L1	0	1	0
* *D. tenue*	0	0	0	0	0	0	0	0
* *D. vulgare*	0	0	0	0	0	0	L1	0
* *Diploneis decipiens*	0	0	0	0	0	0	L1	L1
* *Epithemia sorex*	0	0	0	0	0	0	0	0
* *E. turgida*	0	0	0	0	0	0	0	0
* *Eunotia pectinalis*	0	0	0	0	0	0	0	0
* *Fragilaria capucina*	0	0	0	0	0	0	0	0
* *F. construens*	0	0	0	0	0	0	0	0

Table 22e. (Continued)

	Station 2				Station 3			
	Sample 1 Live	Sample 1 Dead	Sample 2 Live	Sample 2 Dead	Sample 1 Live	Sample 1 Dead	Sample 2 Live	Sample 2 Dead
* *F. construens* var. *binodis*	1	0	0	0	0	0	0	0
* *F. construens* var. *venter*	0	0	0	0	0	0	0	0
* *F. crotonensis*	L1	L1	2	0	2	L1	2	0
* *F. leptostauron*	0	0	1	0	0	0	0	0
* *F. vaucheriae*	0	0	1	0	0	0	0	0
* *Frustulia rhomboides*	0	0	0	0	0	0	0	0
* *Gomphonema geminatum*	0	0	0	0	0	0	0	0
* *G. herculeanum*	0	0	0	0	L1	0	0	0
* *G. intricatum*	0	0	2	0	0	0	0	0
* *G. lanceolatum*	0	0	0	0	0	0	0	0
* *G. olivaceum*	14	3	14	5	3	1	8	1
* *G. parvulum*	0	0	0	0	0	0	0	0
* *G. parvulum* var. *genuinum*	0	0	0	0	0	0	0	0
* *Gyrosigma kützingii*	0	0	0	0	0	0	0	0
* *Hannaea arcus*	5	2	8	3	3	1	4	1
* *H. arcus* var. *amphioxys*	1	0	2	0	0	0	1	0
* *Melosira varians*	0	0	L1	0	0	0	0	0
* *Meridion circulare*	1	0	1	0	L1	0	1	0
* *Navicula arvensis*	0	0	4	0	0	0	0	0
* *N. bergii*	0	0	0	0	0	0	0	0
* *N. bicephala*	0	0	1	0	0	0	1	0
* *N. cryptocephala*	0	0	0	0	0	0	0	0
* *N. muralis*	0	0	0	0	0	0	0	0
* *N. pupula*	0	0	0	0	0	0	0	0
* *N. radiosa*	0	0	1	0	0	0	0	0
* *N. salinarum* var. *intermedia*	3	0	3	0	1	L1	L1	0

Table 22e. (Continued)

	Station 2				Station 3			
	Sample 1 Live	Sample 1 Dead	Sample 2 Live	Sample 2 Dead	Sample 1 Live	Sample 1 Dead	Sample 2 Live	Sample 2 Dead
* *N. tripunctata*	0	0	0	0	0	0	0	0
* *Navicula* sp. A	0	0	0	0	0	0	0	0
* *Navicula* sp. B	0	0	0	0	0	0	0	0
* *Navicula* sp. C	0	0	0	0	0	0	0	0
* *Navicula* sp. X	0	0	0	0	0	0	0	0
* *Neidium affine*	0	0	0	0	0	0	0	0
* *N. incurvum*	0	0	0	0	0	0	0	0
* *Nitzschia acicularis*	0	0	0	0	0	0	0	0
* *N. dissipata*	2	L1	3	L1	1	0	2	0
* *N. frustulum*	0	0	0	0	0	0	0	0
* *N. linearis*	0	0	0	0	0	0	0	0
* *N. palea*	7	0	6	1	1	1	3	1
* *Pinnularia subrostrata*	0	0	0	0	0	0	0	0
* *Rhoicosphenia curvata*	L1	0	0	0	0	0	0	0
o *Stephanodiscus astraea* var. *minutula*	0	0	0	0	0	0	0	0
* *Surirella angustata*	0	0	0	0	0	0	0	0
o *Synedra acus* var. *radians*	0	0	L1	0	1	0	1	0
* *S. ulna*	8	2	8	3	4	1	4	1
* *S. ulna* var. *oxyrhynchus*	6	L1	0	0	1	0	3	0
Chlorophyta:								
o cf. *Chlamydomonas* sp.[1]	36	0	46	0	0	0	0	0
* *Mougeotia* sp. A	0	0	0	0	0	0	0	0
* *Ulothrix zonata*	L1[2]	0	0	0	0	0	0	0
* *Ulothrix* sp. A	1[3]	0	0	0	0	0	L1[4]	0
* *Ulothrix* sp. B	0	0	0	0	L1[5]	0	0	0

1 may be biflagellate zoospores of Ulothrix 2 filament length = 0.37 mm 3 filament length = 0.37 mm, 0.37 mm
4 filament length = 0.75 mm 5 filament length = 0.01 mm

Table 22e. (Continued)

	Station 2				Station 3			
	Sample 1 Live	Sample 1 Dead	Sample 2 Live	Sample 2 Dead	Sample 1 Live	Sample 1 Dead	Sample 2 Live	Sample 2 Dead
Cyanophyta:								
* *Nostoc* sp.	0	0	0	0	L1[6]	0	L1[7]	0
* *Oscillatoria* sp.	0	0	0	0	0	0	0	0
Chrysophyta:								
* Order Chrysosaccales-like	0	0	0	0	0	0	0	0
Xanthophyta:								
* Order Vaucheriales	0	0	0	0	0	0	0	0
Cryptophyta:								
o *Cryptomonas* sp.	1	0	0	0	L1	0	0	0
Total Count	104	8	123	13	36	8	46	6
Percent Live Cells	92.9		90.4		81.8		88.5	

6 filament length = 0.45 mm
7 filament length = 0.10 mm

Table 23a.

Percent numeric composition of live (with chloroplasts) phytoplankton species collected from seven sites April 10-12, 1976. Species that are typically periphytic are indicated with a asterisk (*), those typically planktonic with a circle (o), and those equally important in both habitats with a plus-minus sign (±).

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7
Diatoms:							
* *Achnanthes lanceolata*	0	0	0	0	0	0	0
* *A. minutissima*	0	3.3	0	0	0	0	2.9
* *Achnanthes* sp. A	0	0	0	0	0	0	0
* *Achnanthes* sp. B	0	0	0	0	0	0	0
* *Amphipleura pellucida*	0	0	0	0	0	0	0
* *Amphora ovalis*	0	0	0	0	0	0	0
* *Cocconeis pediculus*	0	0	0	0	0	0	0
* *C. placentula*	0	0	0	0	22.2	0	0
* *Cymatopleura solea*	0	0	0	0	0	0	0
* *Cymbella caespitosa*	10.0	3.3	0	0	0	0	0
* *C. sinuata*	0	0	0	0	0	0	0
* *C. turgida*	0	0	0	0	0	0	0
* *C. ventricosa*	10.0	3.3	0	0	0	20.0	0
± *Diatoma hiemale*	20.0	46.7	0	0	0	20.0	17.1
* *D. tenue*	0	0	0	0	0	0	0
* *D. vulgare*	0	0	0	0	0	0	0
* *Epithemia sorex*	0	0	0	0	0	0	0
* *E. turgida*	0	0	0	0	0	0	0
* *Eunotia pectinalis*	0	0	0	0	0	0	0
* *Fragilaria capucina*	0	0	0	0	0	0	0
* *F. construens*	0	0	0	0	0	0	0
* *F. construens* var. *binodis*	0	0	0	0	0	0	0
* *F. construens* var. *venter*	0	0	0	0	0	0	14.2

Table 23a. (Continued)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7
* *F. leptostauron*	0	0	0	0	0	0	2.9
* *F. vaucheriae*	10.0	0	0	0	0	0	0
* *Frustulia rhomboides*	0	0	0	0	0	0	25.7
* *Gomphonema geminatum*	0	0	0	0	0	0	0
* *G. herculeanum*	0	0	0	0	0	0	0
* *G. lanceolatum*	0	0	0	0	0	0	0
* *G. olivaceum*	10.0	0	0	0	22.2	0	0
* *G. parvulum*	20.0	3.3	100.0	0	33.3	0	0
* *G. parvulum* var. *genuinum*	0	0	0	0	0	0	0
* *Gyrosigma kützingii*	0	0	0	0	0	0	0
* *Hannaea arcus*	10.0	30.0	0	0	0	0	14.2
* *H. arcus* var. *amphioxys*	0	0	0	0	0	0	0
* *Melosira varians*	0	0	0	0	0	0	0
* *Meridion circulare*	10.0	0	0	0	0	0	22.9
* *Navicula bergii*	0	0	0	0	0	0	0
* *N. bicephala*	0	0	0	0	0	0	0
* *N. cryptocephala*	0	0	0	0	0	0	0
* *N. muralis*	0	0	0	0	0	0	0
* *N. pupula*	0	0	0	100.0	0	0	0
* *N. radiosa*	0	0	0	0	0	0	0
* *N. salinarum* var. *intermelia*	0	3.3	0	0	0	20.0	0
* *N. tripunctata*	0	0	0	0	0	0	0
* *Navicula* sp. A	0	0	0	0	0	0	0
* *Navicula* sp. B	0	0	0	0	0	0	0
* *Navicula* sp. C	0	0	0	0	0	0	0
* *Navicula* sp. X	0	0	0	0	0	0	0

Table 23a. (Continued)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7
* *Neidium affine*	0	0	0	0	0	0	0
* *N. incurvum*	0	0	0	0	0	0	0
* *Nitzschia acicularis*	0	0	0	0	0	0	0
* *N. dissipata*	0	3.3	0	0	0	0	0
* *N. frustulum*	0	0	0	0	0	0	0
* *N. linearis*	0	0	0	0	0	0	0
* *N. palea*	0	0	0	0	0	0	0
* *Pinnularia subrostrata*	0	0	0	0	0	0	0
* *Rhoicosphenia curvata*	0	0	0	0	22.2	20.0	0
o *Stephanodiscus astraea* var. *minutula*	0	0	0	0	0	0	0
* *Surirella angustata*	0	0	0	0	0	20.0	0
* *Synedra ulna*	0	3.3	0	0	0	0	0
* *S. ulna* var. *oxyrhynchus*	0	0	0	0	0	0	0
Chlorophyta:							
o cf. *Chlamydomonas*	0	0	0	0	0	0	0
* *Mougeotia* sp. A	0	0	0	0	0	0	0
Cyanophyta:							
* *Nostoc* sp.	0	0	0	0	0	0	0
* *Oscillatoria* sp.	0	0	0	0	0	0	0
Chrysophyta:							
* Order Chrysosaccales-like	0	0	0	0	0	0	0
Xanthophyta:							
* Order Vaucheriales	0	0	0	0	0	0	0
Number of species:	8	9	1	1	4	5	7

Table 23b.

Percent numeric composition of live (with chloroplasts) phytoplankton species collected from seven sites June 14-15, 1976. Species that are typically periphytic are indicated with a asterisk (*), those typically planktonic with a circle (o), and those equally important in both habitats with a plus-minus sign (±).

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 7	Station 9
Diatoms:							
* *Achnanthes lanceolata*	0	0	0	0	0	0	0
* *A. minutissima*	14.2	5.3	18.8	6.7	0	0	0
* *Achnanthes* sp. A	0	0	0	0	0	0	0
* *Achnanthes* sp. B	0	0	0	0	0	0	0
* *Amphipleura pellucida*	0	0	0	0	0	0	0
* *Amphora ovalis*	0	0	0	0	0	0	0
* *Cocconeis pediculus*	0	0	0	0	0	0	0
* *C. placentula*	0	0	0	0	0	0	0
* *Cymatopleura solea*	0	0	0	0	0	0	0
* *Cymbella caespitosa*	7.1	5.3	0	0	0	0	12.5
* *C. sinuata*	0	0	0	0	0	0	0
* *C. turgida*	0	0	0	0	0	0	0
* *C. ventricosa*	0	10.5	0	0	0	50.0	0
± *Diatoma hiemale*	0	15.8	0	0	0	16.7	0
* *D. tenue*	0	0	0	0	0	0	0
* *D. vulgare*	0	10.5	0	0	0	0	12.5
* *Epithemia sorex*	0	0	0	0	0	0	0
* *E. turgida*	0	0	0	0	0	0	0
* *Eunotia pectinalis*	0	0	0	0	0	0	0
* *Fragilaria capucina*	0	0	0	0	0	0	0
* *F. construens*	0	0	0	0	0	0	0
* *F. construens* var. *binodis*	0	0	0	0	0	0	0
* *F. construens* var. *venter*	28.6	0	0	53.3	0	0	0

Table 23b. (Continued)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 7	Station 9
* *F. leptostauron*	0	0	0	0	0	0	0
* *F. vaucheriae*	0	0	6.2	0	0	0	0
* *Frustulia rhomboides*	0	0	0	0	0	0	0
* *Gomphonema geminatum*	0	0	0	0	0	0	0
* *G. herculeanum*	0	0	0	0	0	0	0
* *G. lanceolatum*	0	0	0	0	0	0	0
* *G. olivaceum*	0	10.5	25.0	0	2.0	0	0
* *G. parvulum*	28.6	21.0	12.5	20.0	4.0	0	50.0
* *G. parvulum* var. *genuinum*	0	0	0	0	0	0	0
* *Gyrosigma kützingii*	0	0	0	0	0	0	0
* *Hannaea arcus*	21.4	21.0	6.2	13.3	8.0	33.3	12.5
* *H. arcus* var. *amphioxys*	0	0	0	6.7	0	0	0
* *Melosira varians*	0	0	0	0	0	0	0
* *Meridion circulare*	0	0	12.5	0	8.0	0	12.5
* *Navicula bergii*	0	0	0	0	0	0	0
* *N. bicephala*	0	0	0	0	0	0	0
* *N. cryptocephala*	0	0	0	0	0	0	0
* *N. muralis*	0	0	0	0	0	0	0
* *N. pupula*	0	0	0	0	0	0	0
* *N. radiosa*	0	0	0	0	0	0	0
* *N. salinarum* var. *intermedia*	0	0	0	0	0	0	0
* *N. tripunctata*	0	0	0	0	0	0	0
* *Navicula* sp. A	0	0	0	0	0	0	0
* *Navicula* sp. B	0	0	0	0	0	0	0
* *Navicula* sp. C	0	0	0	0	0	0	0
* *Navicula* sp. X	0	0	0	0	0	0	0

Table 23b. (Continued)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 7	Station 9
* *Neidium affine*	0	0	0	0	0	0	0
* *N. incurvum*	0	0	0	0	0	0	0
* *Nitzschia acicularis*	0	0	0	0	0	0	0
* *N. dissipata*	0	0	0	0	0	0	0
* *N. frustulum*	0	0	0	0	0	0	0
* *N. linearis*	0	0	6.2	0	0	0	0
* *N. palea*	0	0	0	0	0	0	0
* *Pinnularia subrostrata*	0	0	0	0	0	0	0
* *Rhoicosphenia curvata*	0	0	0	0	0	0	0
o *Stephanodiscus astraea* var. *minutula*	0	0	0	0	0	0	0
* *Surirella angustata*	0	0	0	0	0	0	0
* *Synedra ulna*	0	0	12.5	0	0	0	0
* *S. ulna* var. *oxyrhynchus*	0	0	0	0	0	0	0
Chlorophyta:							
o cf. *Chlamydomonas*	0	0	0	0	0	0	0
* *Mougeotia* sp. A	0	0	0	0	0	0	0
Cyanophyta:							
* *Nostoc* sp.	0	0	0	0	0	0	0
* *Oscillatoria* sp.	0	0	0	0	0	0	0
Chrysophyta:							
* Order Chrysosaccales-like	0	0	0	0	78.0	0	0
Xanthophyta:							
* Order Vaucheriales	0	0	0	0	0	0	0
Number of species:	5	8	8	5	5	3	5

Table 23c.

Percent numeric composition of live (with chloroplasts) phytoplankton species collected from eight sites August 4-5, 1976. Species that are typically periphytic are indicated with a asterisk (*), those typically planktonic with a circle (o), and those equally important in both habitats with a plus-minus sign (±).

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7	Station 9
Diatoms:								
* *Achnanthes lanceolata*	0	0	0	0	0	0	0	0
* *A. minutissima*	0	5.7	10.0	0	0	17.2	10.0	0
* *Achnanthes* sp. A	0	0	0	0	0	0	0	0
* *Achnanthes* sp. B	0	0	0	0	0	0	0	0
* *Amphipleura pellucida*	0	0	0	0	0	0	0	0
* *Amphora ovalis*	0	0	0	0	0	0	0	0
* *Cocconeis pediculus*	0	0	10.0	0	0	0	0	0
* *C. placentula*	0	0	20.0	10.5	11.8	6.9	0	0
* *Cymatopleura solea*	0	0	0	0	0	0	0	0
* *Cymbella caespitosa*	0	5.7	0	0	23.5	6.9	10.0	0
* *C. sinuata*	0	0	0	0	0	0	0	0
* *C. turgida*	0	0	0	0	0	6.9	0	0
* *C. ventricosa*	0	0	0	21.0	0	0	0	5.6
± *Diatoma hiemale*	0	0	0	10.5	0	0	0	0
* *D. tenue*	0	0	0	0	0	0	0	0
* *D. vulgare*	0	0	0	0	0	0	0	0
* *Epithemia sorex*	0	0	0	0	0	0	0	0
* *E. turgida*	0	0	0	0	11.8	0	0	0
* *Eunotia pectinalis*	0	0	0	0	0	0	0	0
* *Fragilaria capucina*	0	0	0	0	0	0	0	0
* *F. construens*	0	0	0	0	0	0	0	0
* *F. construens* var. *binodis*	0	0	0	0	0	0	0	0
* *F. construens* var. *venter*	0	0	0	0	0	0	0	16.7

Table 23c. (Continued)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7	Station 9
* *F. leptostauron*	0	0	0	0	0	0	0	0
* *F. vaucheriae*	0	0	0	0	0	0	0	0
* *Frustulia rhomboides*	0	0	0	0	0	0	0	0
* *Gomphonema geminatum*	0	0	0	0	0	0	0	0
* *G. herculeanum*	0	0	0	0	11.8	0	0	0
* *G. lanceolatum*	0	0	0	0	0	0	0	0
* *G. olivaceum*	0	0	0	0	0	0	10.0	0
* *G. parvulum*	0	5.7	0	10.5	0	6.9	20.0	5.6
* *G. parvulum var. genuinum*	0	0	0	0	0	0	0	0
* *Gyrosigma kützingii*	0	0	0	0	0	0	0	0
* *Hannaea arcus*	0	5.7	30.0	42.1	23.5	0	40.0	0
* *H. arcus var. amphioxys*	0	0	0	0	0	0	0	0
* *Melosira varians*	0	0	0	0	0	0	0	0
* *Meridion circulare*	0	0	0	0	0	0	0	0
* *Navicula bergii*	0	0	0	0	0	0	0	0
* *N. bicephala*	0	0	0	0	0	0	0	0
* *N. cryptocephala*	0	0	0	0	0	0	0	0
* *N. muralis*	0	0	0	0	0	0	0	0
* *N. pupula*	0	0	0	0	0	0	0	0
* *N. radiosa*	0	0	0	0	11.8	0	0	0
* *N. salinarum var. intermedia*	0	0	0	0	0	0	10.0	0
* *N. tripunctata*	0	0	0	0	0	6.9	0	0
* *Navicula* sp. A	0	0	0	0	0	0	0	0
* *Navicula* sp. B	0	0	0	0	0	0	0	0
* *Navicula* sp. C	0	0	0	0	0	0	0	0
* *Navicula* sp. X	0	0	0	0	0	0	0	0

Table 23c. (Continued)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7	Station 9
* *Neidium affine*	0	0	0	0	0	0	0	0
* *N. incurvum*	0	0	0	0	0	0	0	0
* *Nitzschia acicularis*	0	0	0	0	0	0	0	0
* *N. dissipata*	0	0	0	0	0	6.9	0	0
* *N. frustulum*	0	0	0	0	0	0	0	0
* *N. linearis*	0	0	0	0	0	0	0	0
* *N. palea*	0	11.4	20.0	0	0	20.7	0	5.6
* *Pinnularia subrostrata*	0	0	0	0	0	0	0	0
* *Rhoicosphenia curvata*	0	0	0	0	0	0	0	0
o *Stephanodiscus astraea* var. *minutula*	0	0	0	0	0	0	0	0
* *Surirella angustata*	0	0	0	0	0	6.9	0	0
* *Synedra ulna*	0	28.6	0	0	0	6.9	0	5.6
* *S. ulna* var. *oxyrhynchus*	0	0	0	0	0	0	0	0
Chlorophyta:								
o cf. *Chlamydomonas*	100.0	31.4	10.0	5.3	5.9	0	0	61.1
* *Mougeotia* sp. A	0	0	0	0	0	0	0	0
Cyanophyta:								
* *Nostoc* sp.	0	0	0	0	0	0	0	0
* *Oscillatoria* sp.	0	2.9	0	0	0	6.9	0	0
Chrysophyta:								
* Order Chrysosaccales-like	0	0	0	0	0	0	0	0
Xanthophyta:								
* Order Vaucheriales	0	2.9	0	0	0	0	0	0
Number of species:	1	9	6	6	7	11	6	6

Table 23d.

Percent numeric composition of live (with chloroplasts) phytoplankton species collected from eight sites September 11-12, 1976. Species that are typically periphytic are indicated with a asterisk (*), those typically planktonic with a circle (o), and those equally important in both habitats with a plus-minus sign (±).

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7	Station 9
Diatoms:								
* *Achnanthes lanceolata*	0	0	0	0	0	0	0	0
* *A. minutissima*	0	13.3	0	11.1	0	0	20.0	5.6
* *Achnanthes* sp. A	0	0	0	0	0	0	0	0
* *Achnanthes* sp. B	0	0	0	0	0	0	0	0
* *Amphipleura pellucida*	0	0	0	0	0	0	0	0
* *Amphora ovalis*	0	0	0	0	0	0	0	0
* *Cocconeis pediculus*	0	0	6.4	0	0	0	0	5.6
* *C. placentula*	60.0	13.3	38.7	0	22.2	40.0	20.0	27.8
* *Cymatopleura solea*	0	0	6.4	0	0	6.7	0	0
* *Cymbella caespitosa*	0	4.4	0	11.1	22.2	0	0	0
* *C. sinuata*	0	0	0	0	0	0	0	0
* *C. turgida*	0	0	0	0	0	0	0	0
* *C. ventricosa*	0	8.9	0	0	22.2	0	40.0	5.6
± *Diatoma hiemale*	0	0	0	11.1	0	0	0	0
* *D. tenue*	0	0	0	0	0	0	0	0
* *D. vulgare*	0	0	0	0	0	0	0	0
* *Epithemia sorex*	0	0	0	0	0	0	0	0
* *E. turgida*	0	0	0	0	0	0	0	11.1
* *Eunotia pectinalis*	0	0	0	0	0	0	0	0
* *Fragilaria capucina*	0	0	0	0	0	0	0	0
* *F. construens*	0	0	0	0	0	0	0	0
* *F. construens* var. *binodis*	0	0	0	0	0	0	0	0
* *F. construens* var. *venter*	0	0	0	0	0	0	0	0

Table 23d. (Continued)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7	Station 9
* *F. leptostauron*	0	0	6.4	0	0	0	0	0
* *F. vaucheriae*	0	0	0	11.1	0	6.7	0	0
* *Frustulia rhomboides*	0	0	0	0	0	0	0	0
* *Gomphonema geminatum*	0	0	0	0	0	0	0	0
* *G. herculeanum*	0	0	0	0	0	0	0	0
* *G. lanceolatum*	0	0	0	0	0	0	0	0
* *G. olivaceum*	0	0	0	0	0	6.7	20.0	0
* *G. parvulum*	0	0	0	44.4	22.2	0	0	0
* *G. parvulum var. genuinum*	0	0	0	0	0	0	0	0
* *Gyrosigma kützingii*	0	0	0	0	0	0	0	0
* *Hannaea arcus*	0	0	0	0	0	13.3	0	0
* *H. arcus var. amphioxys*	0	0	0	0	0	6.7	0	0
* *Melosira varians*	0	0	0	0	0	0	0	0
* *Meridion circulare*	0	0	0	0	0	0	0	0
* *Navicula bergii*	0	0	0	0	0	0	0	0
* *N. bicephala*	0	0	0	0	0	6.7	0	0
* *N. cryptocephala*	0	4.4	0	0	0	0	0	0
* *N. muralis*	0	0	0	0	0	0	0	0
* *N. pupula*	0	0	0	0	0	0	0	0
* *N. radiosa*	0	0	0	0	0	0	0	0
* *N. salinarum var. intermedia*	10.0	0	0	0	0	0	0	11.1
* *N. tripunctata*	0	0	0	0	0	0	0	0
* *Navicula* sp. A	0	0	0	0	0	0	0	0
* *Navicula* sp. B	0	0	0	0	0	0	0	0
* *Navicula* sp. C	0	0	0	0	0	0	0	0
* *Navicula* sp. X	0	0	0	0	0	0	0	0

Table 23d. (Continued)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7	Station 9
* *Neidium affine*	0	0	0	0	0	0	0	0
* *N. incurvum*	0	0	0	0	0	0	0	0
* *Nitzschia acicularis*	10.0	4.4	6.4	0	0	0	0	5.6
* *N. dissipata*	10.0	0	0	0	0	0	0	0
* *N. frustulum*	0	0	0	0	0	0	0	0
* *N. linearis*	0	0	0	0	0	0	0	5.6
* *N. palea*	0	8.9	6.4	11.1	0	0	0	5.6
* *Pinnularia subrostrata*	0	0	0	0	0	0	0	0
* *Rhoicosphenia curvata*	0	4.4	0	0	0	0	0	0
o *Stephanodiscus astraea* var. *minutula*	0	0	0	0	0	0	0	0
* *Surirella angustata*	0	0	0	0	0	0	0	0
* *Synedra ulna*	10.0	13.3	19.4	0	0	13.3	0	11.1
* *S. ulna* var. *oxyrhynchus*	0	0	0	0	0	0	0	5.6
Chlorophyta:								
o cf. *Chlamydomonas*	0	20.0	3.2	0	0	0	0	0
* *Mougeotia sp. A*	0	0	3.2	0	0	0	0	0
Cyanophyta:								
* *Nostoc* sp.	0	0	3.2	0	11.1	0	0	0
* *Oscillatoria* sp.	0	4.4	0	0	0	0	0	0
Chrysophyta:								
* Order Chrysosaccales-like	0	0	0	0	0	0	0	0
Xanthophyta:								
* Order Vaucheriales	0	0	0	0	0	0	0	0
Number of species:	5	11	10	6	5	8	4	11

Table 23e.

Percent numeric composition of live (with chloroplasts) phytoplankton species collected from two sites sampled July 28, 1982. Species that are typically periphytic are indicated with a asterisk (*), those typically planktonic with a circle (o), and those equally important in both habitats with a plus-minus (±).

	Station 2		Station 3	
	Sample 1	Sample 2	Sample 1	Sample 2
Diatoms:				
* *Achnanthes lanceolata*	.00	1.03	.60	.00
* *A. minutissima*	8.13	9.62	8.33	7.87
* *Achnanthes* sp. A	.00	.00	.00	.00
* *Achnanthes* sp. B	.00	.00	.00	.00
* *Amphipleura pellucida*	.00	.00	.00	.46
* *Amphora ovalis*	1.22	1.72	1.19	.00
* *Anomoeneis exilis*	.00	.00	2.38	.93
* *Cocconeis pediculus*	.00	.00	.00	.00
* *C. placentula*	.41	.00	2.98	3.70
* *Cymatopleura solea*	.00	.00	.00	.00
* *Cymbella caespitosa*	.00	.00	.00	.00
* *C. sinuata*	.81	.34	.00	.00
* *C. turgida*	.41	.00	.00	.00
* *C. ventricosa*	4.88	4.47	7.74	3.70
± *Diatoma elongatum*	.41	.00	26.19	12.50
± *D. hiemale*	.00	.00	.00	.00
* *D. hiemale* var. *mesodon*	.00	.00	1.19	2.31
* *D. tenue*	.00	.00	.00	.00
* *D. vulgare*	.00	.00	.00	.46
* *Diploneis decipiens*	.00	.00	.00	.93
* *Epithemia sorex*	.00	.00	.00	.00
* *E. turgida*	.00	.00	.00	.00
* *Eunotia pectinalis*	.00	.00	.00	.00
* *Fragilaria capucina*	.00	.00	.00	.00

Table 23e. (Continued)

	Station 2		Station 3	
	Sample 1	Sample 2	Sample 1	Sample 2
* *F. construens*	.00	.00	.00	.00
* *F. construens* var. *binodis*	.81	.00	.00	.00
* *F. construens* var. *venter*	.00	.00	.00	.00
* *F. crotonensis*	.41	1.37	5.36	5.09
* *F. leptostauron*	.00	.69	.00	.00
* *F. vaucheriae*	.00	1.03	.00	.00
* *Frustulia rhomboides*	.00	.00	.00	.00
* *Gomphonema geminatum*	.00	.00	.00	.00
* *G. herculeanum*	.00	.00	.60	.00
* *G. intricatum*	.00	1.37	.00	.00
* *G. lanceolatum*	.00	.00	.00	.00
* *G. olivaceum*	13.01	11.00	8.33	16.67
* *G. parvulum*	.00	.00	.00	.00
* *G. parvulum* var. *genuinum*	.00	.00	.00	.00
* *Gyrosigma kützingii*	.00	.00	.00	.00
* *Hannaea arcus*	4.88	6.87	7.74	9.26
* *H. arcus* var. *amphioxys*	.81	1.37	.00	2.31
* *Melosira varians*	.00	.34	.00	.00
* *Meridion circulare*	.81	.69	.60	1.85
* *Navicula arvensis*	.00	3.09	.00	.00
* *N. bergii*	.00	.00	.00	.00
* *N. bicephala*	.00	.69	.00	2.78
* *N. cryptocephala*	.00	.00	.00	.00
* *N. muralis*	.00	.00	.00	.00
* *N. pupula*	.00	.00	.00	.00
* *N. radiosa*	.00	.69	.00	.00
* *N. salinarum* var. *intermedia*	3.25	2.41	3.57	.93

Table 23e. (Continued)

	Station 2 Sample 1	Station 2 Sample 2	Station 3 Sample 1	Station 3 Sample 2
* *N. tripunctata*	.00	.00	.00	.00
* *Navicula* sp. A	.00	.00	.00	.00
* *Navicula* sp. B	.00	.00	.00	.00
* *Navicula* sp. C	.00	.00	.00	.00
* *Navicula* sp. X	.00	.00	.00	.00
* *Neidium affine*	.00	.00	.00	.00
* *N. incurvum*	.00	.00	.00	.00
* *Nitzschia acicularis*	.00	.00	.00	.00
* *N. dissipata*	2.03	2.06	1.79	3.70
* *N. frustulum*	.00	.00	.00	.00
* *N. linearis*	.00	.00	.00	.00
* *N. palea*	6.91	5.15	3.57	6.02
* *Pinnularia subrostrata*	.00	.00	.00	.00
* *Rhoicosphenia curvata*	.41	.00	.00	.00
o *Stephanodiscus astraea* var. *minutula*	.00	.00	.00	.00
* *Surirella angustata*	.00	.00	.00	.00
o *Synedra acus*	.00	.34	2.98	2.31
* *S. ulna*	8.13	6.19	10.12	9.72
* *S. ulna* var. *oxyrhynchus*	6.10	.00	2.38	5.56
Chlorophyta:				
o cf. *Chlamydomonas* sp.[1]	34.15	37.46	.00	.00
* *Mougeotia* sp. A	.00	.00	.00	.00
* *Ulothrix zonata*	.41	.00	.00	.00
* *Ulothrix* sp. A	.81	.00	.00	.46
* *Ulothrix* sp. B	.00	.00	.60	.00

1 may be biflagellate zoospores of Ulothrix

Table 23e. (Continued)

	Station 2		Station 3	
	Sample 1	Sample 2	Sample 1	Sample 2
* Cyanophyta:				
* *Nostoc* sp.	.00	.00	.60	.46
* *Oscillatoria* sp.	.00	.00	.00	.00
Chrysophyta:				
* Order Chrysosaccales-like	.00	.00	.00	.00
Xanthophyta:				
* Order Vaucheriales	.00	.00	.00	.00
Cryptophyta:				
o *Cryptomonas* sp.	.81	.00	1.19	.00
Number of Species	23	23	22	23
Shannon-Wiener Index	3.32	3.31	3.69	3.92

Table 24

Diversity (Shannon-Wiener function H') of live phytoplankton collected from eight sites on the Flathead River Basin, April-September, 1976. In calculating the diversity indices, each Chlorophyte, Xanthophyte and Cyanophyte filament was treated as one cell.

	April, 1976	June, 1976	August, 1976	September, 1976
Station 1	2.922	2.182	0	1.771
Station 2	2.179	2.840	2.636	3.246
Station 3	0	2.828	2.446	2.744
Station 4	0	1.857	2.248	2.281
Station 5	1.975	1.161	2.676	2.281
Station 6	2.322	Not Sampled	3.302	2.606
Station 7	2.522	1.459	2.322	1.922
Station 9	Not Sampled	2.000	1.792	3.192

TABLE 25

Counts of macroinvertebrates collected on natural substrates in the Flathead River Basin, April - September, 1976. Insects are listed under the lowest taxonomic category to which each individual could be identified.

(Note: Some Arcynopteryx may have been recorded as Isogenus, and some Agapetus may have been recorded as unidentified Glossosomatidae)

Station No: 1
Date: April 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	0	0	0	1	1
Elmidae (larva)	0	0	0	0	0	0
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	0	1	0	0	0	1
Nematocera (unidentified)	1	0	0	0	0	1
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - *Pericoma* spp.	0	1	0	0	1	2
Tanyderidae	2	0	0	0	0	2
Tendipididae	8	4	8	7	14	41
Tipulidae	0	0	0	1	0	1
Emphemeroptera (unidentified)	0	0	0	1	0	1
Baetidae	4	5	4	1	2	16
Ephemerellidae (unidentified)	0	0	0	0	0	0
Ephemerella spp.	0	0	0	0	0	0
cf. *E. euterpe*	0	0	0	0	0	0
E. coloradensis	0	0	0	0	0	0
E. doddsii	0	0	0	0	0	0
E. spinifera group	0	0	0	0	0	0
E. serrata group	0	0	0	0	0	0
Heptageniidae	2	2	1	2	4	11
Rhithrogena spp.	2	1	1	1	0	5
Lepthophlebiidae	1	0	0	1	1	3
Siphlonuridae	0	1	1	0	0	2
Plecoptera (unidentified)	0	1	0	1	0	2
Holognatha (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	14	3	8	2	6	33
N. subgenus *Zapada*	0	0	1	0	0	1
N. subgenus *Zapada cinctipes*	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Bucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	0	0	0	0	0
Systellognatha (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	0	0	2	0	1	3
Alloperla spp.	0	1	0	0	0	1
Perlodidae (unidentified)	0	0	0	0	0	0
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	0	0	0	0	0	0
Isoperla spp.	0	0	0	0	0	0
Type red	0	0	0	0	0	0
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0	0
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
Rhyacophila spp.	0	0	0	0	0	0
OSTRACODA	0	0	1	0	0	1
ACARI	0	0	0	0	0	0
OLIGOCHAETA	0	0	0	0	1	1
TURBELLARIA	0	0	0	0	0	0
NEMATODA	0	0	0	0	0	0
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	34	20	27	17	31	129

Station No: 2
Date: April 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	0	0	2	0	2
Elmidae (larva)	0	1	1	1	0	3
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	3	2	2	1	0	8
Nematocera (unidentified)	0	0	1	0	1	2
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - *Pericoma* spp.	14	2	14	3	2	35
Tanyderidae	0	0	0	0	0	0
Tendipididae	6	6	2	4	3	21
Tipulidae	3	1	0	2	1	7
Emphemeroptera (unidentified)	0	2	1	3	0	6
Baetidae	3	0	0	8	1	12
Ephemerellidae (unidentified)	0	0	0	0	0	0
Ephemerella spp.	0	0	0	0	0	0
cf. *E. euterpe*	3	0	2	6	5	16
E. coloradensis	0	0	0	0	0	0
E. doddsii	0	0	0	0	0	0
E. spinifera group	0	0	0	0	0	0
E. serrata group	0	0	0	0	0	0
Heptageniidae	2	1	1	3	2	9
Rhithrogena spp.	0	0	0	0	1	1
Lepthophlebiidae	0	1	0	1	0	2
Siphlonuridae	1	0	0	24	3	28
Plecoptera (unidentified)	2	1	0	2	0	5
Holognatha (unidentified)	0	1	0	0	0	1
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	19	25	2	81	11	138
N. subgenus *Zapada*	0	2	0	0	2	4
N. subgenus *Zapada cinctipes*	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	0	0	0	0	0
Systellognatha (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	2	1	1	2	0	6
Alloperla spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	1	0	1
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	0	0	0	0	0	0
Isoperla spp.	0	0	0	0	0	0
Type red	0	0	0	0	0	0
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0	0
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	1	0	1
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	1	0	0	1
Rhyacophilidae (unidentified)	0	0	1	1	0	2
Rhyacophila spp.	0	0	0	0	0	0
OSTRACODA	0	3	3	5	0	11
ACARI	1	0	0	0	0	1
OLIGOCHAETA	0	0	7	0	2	9
TURBELLARIA	0	0	0	0	0	0
NEMATODA	0	0	3	0	0	3
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	59	49	42	151	34	335

Station No: 4
Date: April 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	0	0	1	0	0	1
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	1	0	0	0	0	1
Nematocera (unidentified)	0	0	0	0	0	0
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - *Pericoma* spp.	0	1	1	0	2	4
Tanyderidae	0	0	0	0	0	0
Tendipididae	0	2	3	0	0	5
Tipulidae	1	0	2	0	1	4
Emphemeroptera (unidentified)	0	0	0	0	0	0
Baetidae	5	7	16	0	2	30
Ephemerellidae (unidentified)	0	0	0	0	0	0
Ephemerella spp.	0	0	0	0	0	0
cf. *E. euterpe*	0	0	1	0	0	1
E. coloradensis	0	0	0	0	0	0
E. doddsii	0	0	0	0	0	0
E. spinifera group	0	0	0	0	0	0
E. serrata group	0	0	0	0	0	0
Heptageniidae	5	7	18	0	2	32
Rhithrogena spp.	0	0	0	0	0	0
Lepthophlebiidae	0	0	0	1	0	1
Siphlonuridae	0	1	0	0	0	1
Plecoptera (unidentified)	0	0	0	2	0	2
Holognatha (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	2	1	3	0	3	9
N. subgenus *Zapada*	1	0	0	0	0	1
N. subgenus *Zapada cinctipes*	0	0	0	0	0	0
Capniinae (unidentified)	0	0	2	0	0	2
Capnia or *Eucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	0	0	0	0	0
Systellognatha (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	0	1	2	0	0	3
Alloperla spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0	0
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	0	0	0	0	0	0
Isoperla spp.	0	0	0	0	0	0
Type red	0	0	0	0	0	0
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0	0
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
Ryacophila spp.	0	0	0	0	0	0
OSTRACODA	0	0	0	0	0	0
ACARI	0	0	0	0	0	0
OLIGOCHAETA	0	0	0	0	0	0
TURBELLARIA	0	0	0	0	0	0
NEMATODA	0	0	0	0	0	0
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	15	20	49	3	10	97

Station No: 5
Date: April 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	0	0	0	0	2	2
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	0	0	0	0	0	0
Nematocera (unidentified)	1	2	3	3	0	9
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - *Pericoma* spp.	1	14	2	21	0	38
Tanyderidae	0	2	0	2	0	4
Tendipididae	17	48	21	48	3	137
Tipulidae	2	1	0	2	6	11
Emphemeroptera (unidentified)	1	8	3	0	2	14
Baetidae	6	22	22	20	24	94
Ephemerellidae (unidentified)	0	0	0	0	0	0
Ephemerella spp.	0	0	0	0	0	0
cf. *E. euterpe*	1	9	1	0	1	12
E. coloradensis	0	0	0	0	0	0
E. doddsii	0	0	0	0	0	0
E. spinifera group	0	0	0	0	0	0
E. serrata group	0	0	0	0	0	0
Heptageniidae	7	53	35	22	10	127
Rhithrogena spp.	0	0	0	0	0	0
Lepthophlebiidae	0	0	0	0	0	0
Siphlonuridae	2	1	0	1	0	4
Plecoptera (unidentified)	2	5	9	3	2	21
Holognatha (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	27	87	67	40	2	223
N. subgenus *Zapada*	2	0	1	2	0	5
N. subgenus *Zapada cinctipes*	0	1	0	0	0	1
Capniinae (unidentified)	5	5	7	11	2	30
Capnia or *Bucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	1	0	1	0	2
Systellognatha (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	0	3	1	3	0	7
Alloperla spp.	3	9	6	12	2	32
Perlodidae (unidentified)	0	2	0	2	1	5
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	0	0	0	0	0	0
Isoperla spp.	0	0	0	0	0	0
Type red	0	2	0	0	0	2
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0	0
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	1	0	0	0	0	1
Ryacophila spp.	0	0	0	0	0	0
OSTRACODA	0	0	0	0	0	0
ACARI	0	0	0	0	0	0
OLIGOCHAETA	0	0	0	0	3	3
TURBELLARIA	0	0	0	0	0	0
NEMATODA	0	1	2	1	0	4
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	78	276	180	194	60	788

Station No: 7
Date: April 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	4	7	3	1	1	16
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	0	0	0	0	1	1
Nematocera (unidentified)	4	3	1	2	3	13
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - *Pericoma* spp.	8	14	15	12	18	67
Tanyderidae	0	0	0	0	0	0
Tendipididae	35	58	49	37	44	223
Tipulidae	1	1	1	0	1	4
Emphemeroptera (unidentified)	0	0	0	0	0	0
Baetidae	2	13	2	1	2	20
Ephemerellidae (unidentified)	0	0	0	0	0	0
Ephemerella spp.	0	0	0	0	0	0
cf. *E. euterpe*	6	5	3	7	14	35
E. coloradensis	0	0	0	0	0	0
E. dodasii	0	0	0	3	1	4
E. spinifera group	0	0	0	0	1	1
E. serrata group	2	1	0	0	0	3
Heptageniidae	40	68	19	56	81	264
Rhithrogena spp.	1	0	0	3	0	4
Lepthophlebiidae	3	4	0	2	0	9
Siphlonuridae	3	2	7	3	4	19
Plecoptera (unidentified)	3	6	3	4	6	22
Holognatha (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	22	43	6	7	10	88
N. subgenus *Zapada*	0	3	1	0	0	4
N. subgenus *Zapada cinctipes*	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	2	1	0	3	7	13
Taeniopteryginae - *Brachyptera* spp.	0	0	0	0	0	0
Systellognatha (unidentified)	0	0	0	1	0	1
Chloroperlidae (unidentified)	8	3	6	11	9	37
Alloperla spp.	0	2	0	0	0	2
Perlodidae (unidentified)	2	0	0	0	0	2
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	0	0	0	0	0	0
Isoperla spp.	2	0	1	1	0	4
Type red	1	2	2	1	2	8
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0	0
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
Ryacophila spp.	0	0	1	0	1	2
OSTRACODA	12	18	19	26	18	93
ACARI	0	3	2	0	3	8
OLIGOCHAETA	1	0	0	0	0	1
TURBELLARIA	0	1	0	0	1	2
NEMATODA	0	0	0	0	1	1
PELECYPODA	1	0	0	0	0	1
Total Number of Organisms	163	258	141	181	229	972

Station No: 1
Date: June 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	0	0	1	0	0	1
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	0	0	0	0	0	0
Nematocera (unidentified)	0	1	0	0	0	1
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - *Pericoma* spp.	0	0	0	0	0	0
Tanyderidae	1	0	0	0	0	1
Tendipididae	3	6	5	11	6	31
Tipulidae	1	0	0	0	0	1
Emphemeroptera (unidentified)	0	2	2	0	0	4
Baetidae	7	13	5	9	8	42
Ephemerellidae (unidentified)	0	0	0	0	0	0
Ephemerella spp.	0	0	0	0	0	0
cf. *E. euterpe*	0	0	1	0	2	3
E. coloradensis	0	0	0	0	1	1
E. doddsii	1	1	0	0	1	3
E. spinifera group	0	0	0	0	0	0
E. serrata group	0	0	0	0	0	0
Heptageniidae	14	31	25	12	24	106
Rhithrogena spp.	4	5	3	1	2	15
Lepthophlebiidae	3	0	0	0	0	3
Siphlonuridae	0	1	0	0	0	1
Plecoptera (unidentified)	2	0	3	2	2	9
Holognatha (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	0	0	0	0	0	0
N. subgenus *Zapada*	0	0	0	0	0	0
N. subgenus *Zapada cinctipes*	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	0	0	0	0	0
Systellognatha (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	0	0	0	0	0	0
Alloperla spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0	0
Arcynopteryx subgenus *Megarcys* spp.	2	0	0	0	1	3
Isogenus spp.	0	0	0	0	0	0
Isoperla spp.	0	0	0	0	0	0
Type red	0	0	0	1	0	1
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	1	0	0	0	0	1
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	1	1
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
Rhyacophila spp.	0	0	0	0	1	1
OSTRACODA	0	0	0	0	0	0
ACARI	0	0	0	0	0	0
OLIGOCHAETA	1	0	0	0	0	1
TURBELLARIA	0	0	0	0	0	0
NEMATODA	0	0	0	1	0	1
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	40	60	45	37	49	231

Station No: 2
Date: June 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	0	0	0	2	2
Elmidae (larva)	1	42	23	1	21	88
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	0	1	0	0	1	2
Nematocera (unidentified)	2	0	2	0	0	4
Ceratopogoniidae	1	0	0	0	0	1
Psychodidae - *Pericoma* spp.	0	0	0	0	0	0
Tanyderidae	0	0	0	0	0	0
Tendipididae	149	124	115	59	137	584
Tipulidae	2	7	6	2	3	20
Emphemeroptera (unidentified)	3	0	0	0	2	5
Baetidae	14	5	25	4	9	57
Ephemerellidae (unidentified)	0	0	0	0	1	1
Ephemerella spp.	0	0	0	0	0	0
cf. *E. euterpe*	2	0	0	0	1	3
E. coloradensis	2	1	3	4	1	11
E. Goodsii	1	0	0	0	0	1
E. spinifera group	0	0	2	0	0	2
E. serrata group	0	0	0	0	0	0
Heptageniidae	10	5	4	8	27	54
Rhithrogena spp.	1	0	3	2	4	10
Lepthophlebiidae	0	0	0	1	0	1
Siphlonuridae	0	0	0	0	0	0
Plecoptera (unidentified)	2	2	4	1	4	13
Holognatha (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	1	3	3	2	0	9
N. subgenus *Zapada*	1	1	1	0	1	4
N. subgenus *Zapada cinctipes*	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	0	0	0	0	0
Systellognatha (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	0	0	0	0	4	4
Alloperla spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	7	7
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	0	0	0	0	0	0
Isoperla spp.	0	0	0	0	0	0
Type red	6	1	1	6	7	21
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	0	2	1	1	4
Hydropsychidae (unidentified)	0	0	0	0	0	0
Hydropsyche spp.	1	0	1	1	0	3
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	2	0	0	2
Rhyacophila spp.	1	14	9	7	0	31
OSTRACODA	0	1	0	0	3	4
ACARI	1	0	4	2	2	9
OLIGOCHAETA	0	0	0	0	3	3
TURBELLARIA	1	4	3	0	6	14
NEMATODA	0	0	0	0	0	0
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	202	211	213	101	247	974

Station No: 3
Date: June 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	0	0	2	1	3	6
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	0	0	0	0	0	0
Nematocera (unidentified)	0	0	0	0	0	0
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - *Pericoma* spp.	1	0	0	0	0	1
Tanyderidae	0	0	2	1	3	6
Tendipididae	4	3	11	11	4	33
Tipulidae	0	0	0	0	0	0
Emphemeroptera (unidentified)	5	4	3	0	3	15
Baetidae	30	11	23	27	51	142
Ephemerellidae (unidentified)	0	0	0	0	0	0
Ephemerella spp.	0	0	0	0	0	0
cf. *E. euterpe*	0	1	2	2	5	10
E. coloradensis	0	0	0	0	0	0
E. doddsii	0	3	0	1	2	6
E. spinifera group	0	0	0	0	0	0
E. serrata group	0	0	0	0	0	0
Heptageniidae	42	14	27	52	45	180
Rhithrogena spp.	8	17	5	3	9	42
Lepthophlebiidae	1	2	0	0	1	4
Siphlonuridae	0	0	0	0	0	0
Plecoptera (unidentified)	3	0	0	0	2	5
Holognatha (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	0	0	0	0	0	0
N. subgenus *Zapada*	0	0	0	0	0	0
N. subgenus *Zapada cinctipes*	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	0	0	0	0	0
Systellognatha (unidentified)	0	0	0	2	0	2
Chloroperlidae (unidentified)	5	1	1	9	4	20
Alloperla spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0	0
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	0	0	0	0	0	0
Isoperla spp.	0	0	0	0	0	0
Type red	0	0	0	0	0	0
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0	0
Hydropsyche spp.	0	0	1	0	0	1
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
Rhyacophila spp.	0	0	0	0	0	0
OSTRACODA	0	0	0	0	0	0
ACARI	0	0	0	0	0	0
OLIGOCHAETA	0	0	1	0	0	1
TURBELLARIA	0	0	0	0	0	0
NEMATODA	0	0	0	0	0	0
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	99	56	78	109	132	474

Station No: 4
Date: June 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	0	0	1	0	0	1
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	1	0	0	0	0	1
Nematocera (unidentified)	2	1	0	0	0	3
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - *Pericoma* spp.	0	0	0	0	0	0
Tanyderidae	0	0	1	0	0	1
Tendipididae	8	7	31	17	7	70
Tipulidae	5	0	0	0	2	7
Emphemeroptera (unidentified)	0	1	2	1	1	5
Baetidae	16	13	2	9	0	40
Ephemerellidae (unidentified)	0	1	0	0	0	1
Ephemerella spp.	0	0	0	0	0	0
cf. *E. euterpe*	0	0	0	0	0	0
E. coloradensis	4	0	1	0	1	6
E. doddsii	0	0	4	0	0	4
E. spinifera group	0	0	0	0	0	0
E. serrata group	0	0	0	0	0	0
Heptageniidae	36	34	16	14	19	119
Rhithrogena spp.	15	5	9	2	5	36
Lepthophlebiidae	0	0	0	0	0	0
Siphlonuridae	1	1	0	0	0	2
Plecoptera (unidentified)	0	2	3	0	0	5
Holognatha (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	2	1	1	0	0	4
N. subgenus *Zapada*	0	0	0	0	0	0
N. subgenus *Zapada cinctipes*	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	0	0	0	0	0
Systellognatha (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	8	2	5	1	1	17
Alloperla spp.	0	0	0	1	0	1
Perlodidae (unidentified)	4	4	0	0	0	8
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	0	0	0	0	0	0
Isoperla spp.	0	0	0	0	0	0
Type red	0	4	0	0	0	4
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0	0
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
Rhyacophila spp.	0	0	1	0	0	1
OSTRACODA	0	0	0	0	0	0
ACARI	0	0	0	0	0	0
OLIGOCHAETA	0	0	1	0	0	1
TURBELLARIA	0	0	0	0	0	0
NEMATODA	0	0	0	0	3	3
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	102	76	78	45	39	340

Station No: 5
Date: June 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	1	0	0	0	0	1
Collembola	1	0	0	0	0	1
Diptera						
Cyclorrhapha	0	0	0	1	0	1
Nematocera (unidentified)	0	0	0	0	0	0
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - *Pericoma* spp.	0	0	0	0	0	0
Tanyderidae	1	0	0	0	0	1
Tendipididae	2	14	32	18	8	74
Tipulidae	6	4	5	8	7	30
Emphemeroptera (unidentified)	0	0	0	1	2	3
Baetidae	14	24	31	23	21	113
Ephemerellidae (unidentified)	0	0	0	0	0	0
Ephemerella spp.	0	0	0	0	0	0
cf. *E. euterpe*	2	1	0	0	0	3
E. coloradensis	0	1	3	3	6	13
E. doddsii	0	0	0	1	0	1
E. spinifera group	0	0	0	0	0	0
E. serrata group	0	0	0	0	0	0
Heptageniidae	24	38	53	60	43	218
Rhithrogena spp.	2	8	5	0	5	20
Lepthophlebiidae	0	1	0	0	0	1
Siphlonuridae	0	0	0	1	0	1
Plecoptera (unidentified)	3	3	3	2	0	11
Holognatha (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	1	0	1	1	2	5
N. subgenus *Zapada*	1	0	2	1	1	5
N. subgenus *Zapada cinctipes*	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Bucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	0	0	0	0	0
Systellognatha (unidentified)	0	2	0	0	9	11
Chloroperlidae (unidentified)	2	6	2	1	5	16
Alloperla spp.	0	1	1	0	0	2
Perlodidae (unidentified)	0	1	0	0	0	1
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	0	0	0	0	0	0
Isoperla spp.	0	0	0	0	0	0
Type red	1	1	4	1	3	10
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0	0
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
Ryacophila spp.	0	2	1	5	3	11
OSTRACODA	0	0	0	0	0	0
ACARI	0	0	1	0	0	1
OLIGOCHAETA	3	2	1	0	0	6
TURBELLARIA	0	0	0	0	0	0
NEMATODA	2	0	1	1	0	4
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	66	109	146	128	115	564

Station No: 6
Date: June 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	0	1	1	1	0	3
Collembola	0	0	2	0	0	2
Diptera						
Cyclorrhapha	2	3	2	1	0	8
Nematocera (unidentified)	1	0	0	0	0	1
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - *Pericoma* spp.	2	3	1	0	0	6
Tanyderidae	0	1	0	0	2	3
Tendipididae	17	8	4	6	6	41
Tipulidae	4	2	2	0	1	9
Emphemeroptera (unidentified)	0	0	0	0	1	1
Baetidae	6	7	8	37	26	84
Ephemerellidae (unidentified)	0	0	0	0	0	0
Ephemerella spp.	0	0	0	0	0	0
cf. *E. euterpe*	0	1	0	0	0	1
E. coloradensis	0	0	0	0	0	0
E. doddsii	0	0	0	0	0	0
E. spinifera group	0	0	0	0	0	0
E. serrata group	0	0	0	0	0	0
Heptageniidae	8	12	2	18	14	54
Rhithrogena spp.	0	0	0	2	0	2
Lepthophlebiidae	0	0	2	0	0	2
Siphlonuridae	0	0	0	0	0	0
Plecoptera (unidentified)	2	0	0	3	1	6
Holognatha (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	41	13	14	30	23	121
N. subgenus *Zapada*	0	3	0	0	0	3
N. subgenus *Zapada cinctipes*	0	0	0	0	0	0
Capniinae (unidentified)	0	3	1	0	2	6
Capnia or *Eucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	1	1	2	6	8	18
Systellognatha (unidentified)	0	2	0	4	2	8
Chloroperlidae (unidentified)	2	1	3	3	1	10
Alloperla spp.	0	1	0	1	0	2
Perlodidae (unidentified)	0	0	0	1	0	1
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	0	0	0	0	0	0
Isoperla spp.	0	0	0	0	0	0
Type red	2	1	0	2	0	5
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0	0
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	1	0	0	0	1	2
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	7	0	2	4	7	20
Psychomyiidae	2	0	0	1	1	4
Rhyacophilidae (unidentified)		1	2	2	0	5
Ryacophila spp.	4	0	0	2	1	7
OSTRACODA	0	0	0	0	0	0
ACARI	0	0	0	0	2	2
OLIGOCHAETA	1	3	1	2	0	7
TURBELLARIA	1	4	0	0	2	7
NEMATODA	0	0	0	0	0	0
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	104	71	49	126	101	451

Station No: 7
Date: June 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	7	10	6	2	19	44
Collembola	0	0	1	0	0	1
Diptera						
Cyclorrhapha	2	0	0	0	0	2
Nematocera (unidentified)	3	3	3	2	3	14
Ceratopogoniidae	0	1	0	0	0	1
Psychodidae - *Pericoma* spp.	0	0	0	1	0	1
Tanyderidae	0	1	1	2	0	4
Tendipididae	28	187	72	19	79	385
Tipulidae	3	5	1	3	1	13
Emphemeroptera (unidentified)	0	0	0	2	0	2
Baetidae	18	20	5	41	18	102
Ephemerellidae (unidentified)	0	0	0	0	0	0
Ephemerella spp.	0	0	0	0	0	0
cf. *E. euterpe*	0	0	0	0	0	0
E. coloradensis	13	21	3	28	11	76
E. doddsii	3	0	1	3	2	9
E. spinifera group	0	2	2	0	0	4
E. serrata group	1	1	0	1	1	4
Heptageniidae	3	2	1	3	2	11
Rhithrogena spp.	26	18	2	46	3	95
Lepthophlebiidae	5	5	3	2	2	17
Siphlonuridae	0	0	0	0	0	0
Plecoptera (unidentified)	2	0	0	2	3	7
Holognatha (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	0	0	0	1	0	1
N. subgenus *Zapada*	0	0	0	0	0	0
N. subgenus *Zapada cinctipes*	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	0	0	0	0	0
Systellognatha (unidentified)	0	0	1	2	0	3
Chloroperlidae (unidentified)	3	11	7	11	8	40
Alloperla spp.	0	0	0	1	0	1
Perlodidae (unidentified)	1	4	2	2	0	9
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	0	0	0	0	0	0
Isoperla spp.	1	5	0	0	0	6
Type red	2	13	5	3	4	27
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
Glossosoma spp.	1	7	0	1	0	9
Agapetus spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0	0
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	1	0	0	1
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	1	0	0	0	1
Rhyacophilidae (unidentified)	0	0	0	0	0	0
Ryacophila spp.	0	4	5	8	8	25
OSTRACODA	4	2	1	1	0	8
ACARI	0	0	0	0	0	0
OLIGOCHAETA	0	1	7	3	1	12
TURBELLARIA	2	3	4	2	4	15
NEMATODA	0	0	0	0	0	0
PELECYPODA	0	1	0	0	0	1
Total Number of Organisms	128	328	134	192	169	951

Station No: 9
Date: June 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	Total (0.2 m^{-2})
INSECTA			
Coleoptera			
Elmidae (adult)	0	0	0
Elmidae (larva)	0	0	0
Collembola	0	0	0
Diptera			
Cyclorrhapha	0	0	0
Nematocera (unidentified)	0	0	0
Ceratopogoniidae	1	0	1
Psychodidae - *Pericoma* spp.	0	0	0
Tanyderidae	0	0	0
Tendipididae	7	2	9
Tipulidae	0	1	1
Emphemeroptera (unidentified)	7	3	10
Baetidae	7	6	13
Ephemerellidae (unidentified)	0	0	0
Ephemerella spp.	0	0	0
cf. *E. euterpe*	0	0	0
E. coloradensis	0	5	5
E. doddsii	0	0	0
E. spinifera group	0	0	0
E. serrata group	0	0	0
Heptageniidae	63	17	80
Rhithrogena spp.	18	11	29
Lepthophlebiidae	2	2	4
Siphlonuridae	0	0	0
Plecoptera (unidentified)	5	2	7
Holognatha (unidentified)	0	0	0
Nemouridae (unidentified)	0	0	0
Nemoura spp.	0	0	0
N. subgenus *Zapada*	0	0	0
N. subgenus *Zapada cinctipes*	0	0	0
Capniinae (unidentified)	0	0	0
Capnia or *Bucapnopsis* spp.	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	0	0
Systellognatha (unidentified)	0	0	0
Chloroperlidae (unidentified)	21	0	21
Alloperla spp.	0	0	0
Perlodidae (unidentified)	0	0	0
Arcynopteryx subgenus *Megarcys* spp.	0	0	0
Isogenus spp.	0	0	0
Isoperla spp.	0	0	0
Type red	0	0	0
Tricoptera (unidentified)	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0
Glossosomatidae (unidentified)	0	0	0
Glossosoma spp.	0	0	0
Agapetus spp.	0	0	0
Hydropsychidae (unidentified)	0	0	0
Hydropsyche spp.	0	0	0
Parapsyche spp.	0	0	0
Lepidostomatidae	0	0	0
Limnephilidae (unidentified)	0	0	0
Platycentropus spp.	0	0	0
Oligophlebodes spp.	0	0	0
Psychomyiidae	1	0	1
Rhyacophilidae (unidentified)	1	0	1
Ryacophila spp.	2	0	2
OSTRACODA	0	0	0
ACARI	0	0	0
OLIGOCHAETA	0	0	0
TURBELLARIA	0	0	0
NEMATODA	0	1	1
PELECYPODA	0	0	0
Total Number of Organisms	135 50 0 0 0		185

Station No: 1
Date: August 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	0	0	0	2	0	2
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	1	0	0	0	0	1
Nematocera (unidentified)	0	0	1	0	0	1
Ceratopogoniidae	3	0	0	1	0	4
Psychodidae - *Pericoma* spp.	0	2	0	0	0	2
Tanyderidae	0	0	0	1	0	1
Tendipididae	163	21	16	17	69	286
Tipulidae	2	0	0	2	1	5
Emphemeroptera (unidentified)	5	0	0	3	0	8
Baetidae	3	0	2	13	1	19
Ephemerellidae (unidentified)	0	0	0	1	0	1
Ephemerella spp.	0	0	0	0	0	0
cf. *E. euterpe*	0	0	0	0	0	0
E. coloradensis	0	0	0	0	0	0
E. doddsii	0	0	0	0	0	0
E. spinifera group	0	0	0	0	0	0
E. serrata group	0	0	0	0	0	0
Heptageniidae	34	6	9	15	6	70
Rhithrogena spp.	0	0	0	0	0	0
Lepthophlebiidae	1	0	0	0	0	1
Siphlonuridae	55	32	9	2	13	111
Plecoptera (unidentified)	6	0	2	0	0	8
Holognatha (unidentified)	3	2	0	4	5	14
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	0	0	0	0	0	0
N. subgenus *Zapada*	0	0	0	0	0	0
N. subgenus *Zapada cinctipes*	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	0	0	0	0	0
Systellognatha (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	8	5	0	8	15	36
Alloperla spp.	0	2	0	1	0	3
Perlodidae (unidentified)	0	1	3	0	3	7
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	0	0	0	0	0	0
Isoperla spp.	2	0	0	0	1	3
Type red	0	1	1	0	2	4
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0	0
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	1	0	1
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
Ryacophila spp.	0	0	1	0	0	1
OSTRACODA	0	0	0	0	0	0
ACARI	3	4	0	1	1	9
OLIGOCHAETA	0	0	0	0	0	0
TURBELLARIA	0	0	0	0	0	0
NEMATODA	1	0	0	1	2	4
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	290	76	44	73	119	602

Station No: 2
Date: August 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	4	9	2	1	5	21
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	0	3	2	0	0	5
Nematocera (unidentified)	1	2	4	2	3	12
Ceratopogoniidae	3	0	3	0	1	7
Psychodidae - *Pericoma* spp.	0	0	0	0	0	0
Tanyderidae	0	1	1	0	0	2
Tendipididae	146	133	102	46	45	472
Tipulidae	1	0	0	0	1	2
Emphemeroptera (unidentified)	0	0	0	0	0	0
Baetidae	3	21	21	7	24	76
Ephemerellidae (unidentified)	0	0	0	0	0	0
Ephemerella spp.	0	0	0	0	3	3
cf. *E. euterpe*	0	0	0	0	0	0
E. coloradensis	3	0	0	0	0	3
E. doddsii	0	1	0	0	1	2
E. spinifera group	0	1	1	0	0	2
E. serrata group	0	2	14	3	4	23
Heptageniidae	3	8	24	27	21	83
Rhithrogena spp.	0	0	1	0	2	3
Lepthophlebiidae	1	0	1	1	2	5
Siphlonuridae	3	4	1	2	1	11
Plecoptera (unidentified)	2	2	3	1	5	13
Holognatha (unidentified)	2	3	7	1	0	13
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	0	0	0	0	1	1
N. subgenus *Zapada*	0	0	0	0	3	3
N. subgenus *Zapada cinctipes*	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	0	0	0	0	0
Systellognatha (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	8	5	13	11	3	40
Alloperla spp.	2	0	1	0	0	3
Perlodidae (unidentified)	0	0	2	0	0	2
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	0	0	0	0	0	0
Isoperla spp.	0	1	0	0	0	1
Type red	2	3	6	0	2	13
Tricoptera (unidentified)	0	0	2	0	1	3
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	4	4
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	2	0	0	2	4
Hydropsychidae (unidentified)	0	0	0	0	0	0
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	2	0	0	0	0	2
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
Ryacophila spp.	0	0	0	0	4	4
OSTRACODA	0	1	0	0	0	1
ACARI	13	17	16	12	3	61
OLIGOCHAETA	1	2	0	2	1	6
TURBELLARIA	0	1	1	0	0	2
NEMATODA	1	1	1	2	1	6
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	201	223	229	118	143	914

Station No: 3
Date: August 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	0	0	0	0	0	0
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	0	0	0	1	1	2
Nematocera (unidentified)	0	1	2	0	1	4
Ceratopogoniidae	1	2	2	1	0	6
Psychodidae - *Pericoma* spp.	0	0	0	0	0	0
Tanyderidae	0	0	1	0	1	2
Tendipididae	9	18	16	21	13	77
Tipulidae	0	1	0	2	2	5
Emphemeroptera (unidentified)	7	0	4	0	0	11
Baetidae	16	25	32	5	20	98
Ephemerellidae (unidentified)	0	1	0	0	0	1
Ephemerella spp.	0	0	0	0	0	0
cf. *E. euterpe*	0	0	0	0	0	0
E. coloradensis	0	0	0	0	0	0
E. doddsii	0	0	0	0	0	0
E. spinifera group	0	0	0	0	0	0
E. serrata group	0	0	1	0	0	1
Heptageniidae	28	22	11	3	27	91
Rhithrogena spp.	5	2	4	1	9	21
Lepthophlebiidae	0	4	0	0	0	4
Siphlonuridae	2	3	2	1	0	8
Plecoptera (unidentified)	6	3	0	1	0	10
Holognatha (unidentified)	28	59	14	2	72	175
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	0	0	0	0	0	0
N. subgenus *Zapada*	0	0	0	0	0	0
N. subgenus *Zapada cinctipes*	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	0	0	0	0	0
Systellognatha (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	22	5	23	4	16	70
Alloperla spp.	0	1	3	1	0	5
Perlodidae (unidentified)	0	2	5	2	0	9
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	0	0	0	0	0	0
Isoperla spp.	0	0	0	0	0	0
Type red	0	0	0	0	0	0
Tricoptera (unidentified)	0	2	1	0	0	3
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	0	1	0	0	1
Hydropsychidae (unidentified)	0	0	0	0	0	0
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	1	1	0	3	6	11
Ryacophila spp.	0	0	0	2	0	2
OSTRACODA	0	0	0	1	0	1
ACARI	0	1	2	0	1	4
OLIGOCHAETA	0	1	0	0	0	1
TURBELLARIA	0	0	0	0	0	0
NEMATODA	1	2	1	0	2	6
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	126	156	125	51	171	629

Station No: 4
Date: August 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	3	0	2	3	0	8
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	0	0	1	0	0	1
Nematocera (unidentified)	0	3	3	0	1	7
Ceratopogoniidae	1	0	1	2	1	5
Psychodidae - *Pericoma* spp.	0	0	0	0	0	0
Tanyderidae	1	0	1	0	1	3
Tendipididae	27	40	64	49	28	208
Tipulidae	0	1	0	0	0	1
Emphemeroptera (unidentified)	0	3	1	0	6	10
Baetidae	18	22	38	19	20	117
Ephemerellidae (unidentified)	0	1	1	2	1	5
Ephemerella spp.	0	0	0	2	0	2
cf. *E. euterpe*	0	0	0	0	0	0
E. coloradensis	0	1	0	0	0	1
E. doddsii	0	0	0	0	0	0
E. spinifera group	0	2	1	1	0	4
E. serrata group	0	3	2	6	3	14
Heptageniidae	21	13	17	28	19	98
Rhithrogena spp.	9	5	6	4	1	25
Lepthophlebiidae	2	5	2	6	0	15
Siphlonuridae	0	0	0	2	2	4
Plecoptera (unidentified)	8	0	4	3	0	15
Holognatha (unidentified)	22	7	19	7	6	61
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	0	0	0	0	0	0
N. subgenus *Zapada*	0	0	0	0	0	0
N. subgenus *Zapada cinctipes*	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	0	0	0	0	0
Systellognatha (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	10	6	9	3	8	36
Alloperla spp.	1	0	1	3	0	5
Perlodidae (unidentified)	0	0	4	2	1	7
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	0	0	0	0	0	0
Isoperla spp.	0	0	1	0	0	1
Type red	0	0	1	2	2	5
Tricoptera (unidentified)	0	0	1	0	0	1
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	0	5	2	2	9
Hydropsychidae (unidentified)	0	0	0	0	0	0
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	1	1	2	0	5
Rhyacophilidae (unidentified)	0	0	0	0	0	0
Ryacophila spp.	0	0	1	0	0	1
OSTRACODA	0	0	0	0	0	0
ACARI	0	1	1	0	0	2
OLIGOCHAETA	1	0	0	0	0	1
TURBELLARIA	0	0	0	0	0	0
NEMATODA	1	3	3	0	1	8
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	125	117	191	148	103	684

Station No: 5
Date: August 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	3	0	0	0	5	8
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	0	0	1	0	2	3
Nematocera (unidentified)	0	2	1	0	2	5
Ceratopogoniidae	1	0	1	0	1	3
Psychodidae - *Pericoma* spp.	0	0	0	0	0	0
Tanyderidae	0	0	0	0	0	0
Tendipididae	132	92	84	107	103	518
Tipulidae	0	0	0	0	2	2
Emphemeroptera (unidentified)	0	0	1	1	2	4
Baetidae	1	0	1	2	0	4
Ephemerellidae (unidentified)	0	0	0	0	0	0
Ephemerella spp.	0	0	0	0	0	0
cf. *E. euterpe*	0	0	0	0	0	0
E. coloradensis	0	0	0	0	0	0
E. doddsii	2	0	0	0	0	2
E. spinifera group	1	1	1	0	3	6
E. serrata group	1	0	1	0	1	3
Heptageniidae	8	2	8	5	11	34
Rhithrogena spp.	0	1	0	0	0	1
Lepthophlebiidae	1	0	0	1	2	4
Siphlonuridae	1	0	1	2	0	4
Plecoptera (unidentified)	1	0	0	0	1	2
Holognatha (unidentified)	0	0	0	1	2	3
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	0	0	0	0	0	0
N. subgenus *Zapada*	0	0	0	1	0	1
N. subgenus *Zapada cinctipes*	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	0	0	0	0	0
Systellognatha (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	7	4	7	12	22	52
Alloperla spp.	2	3	1	1	9	16
Perlodidae (unidentified)	0	0	0	0	0	0
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	0	0	0	0	0	0
Isoperla spp.	0	0	0	0	0	0
Type red	2	1	0	1	2	6
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	2	0	0	1	1	4
Hydropsychidae (unidentified)	0	0	0	0	0	0
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
Ryacophila spp.	0	0	0	0	0	0
OSTRACODA	3	1	2	3	4	13
ACARI	12	4	3	3	8	30
OLIGOCHAETA	0	0	0	0	0	0
TURBELLARIA	0	0	0	0	0	0
NEMATODA	0	0	0	1	0	1
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	180	111	113	142	183	729

Station No: 6
Date: August 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	21	6	2	7	9	45
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	2	1	0	0	0	3
Nematocera (unidentified)	3	2	2	3	1	11
Ceratopogoniidae	6	0	2	1	2	11
Psychodidae - *Pericoma* spp.	0	0	0	0	0	0
Tanyderidae	6	8	7	10	8	39
Tendipididae	179	102	87	62	78	508
Tipulidae	2	0	0	0	0	2
Emphemeroptera (unidentified)	17	10	5	4	2	38
Baetidae	17	27	46	33	30	153
Ephemerellidae (unidentified)	0	0	0	2	3	5
Ephemerella spp.	0	0	2	0	0	2
cf. *E. euterpe*	0	0	0	0	0	0
E. coloradensis	0	0	0	0	0	0
E. doddsii	0	0	1	2	1	4
E. spinifera group	1	0	2	0	0	3
E. serrata group	0	0	1	1	4	6
Heptageniidae	11	13	21	16	19	80
Rhithrogena spp.	0	0	0	0	0	0
Lepthophlebiidae	0	0	0	0	0	0
Siphlonuridae	17	27	46	33	30	153
Plecoptera (unidentified)	3	3	2	0	5	13
Holognatha (unidentified)	22	28	18	13	18	99
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	3	6	5	4	0	18
N. subgenus *Zapada*	0	0	1	5	11	17
N. subgenus *Zapada cinctipes*	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	0	0	0	0	0
Systellognatha (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	15	1	1	0	0	17
Alloperla spp.	0	1	1	0	0	2
Perlodidae (unidentified)	3	0	0	0	0	3
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	0	0	0	0	0	0
Isoperla spp.	0	0	0	0	0	0
Type red	7	13	15	2	6	43
Tricoptera (unidentified)	0	0	1	3	1	5
Brachycentridae - *Micrasema* spp.	0	0	0	0	1	1
Glossosomatidae (unidentified)	1	0	3	8	2	14
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	0	6	11	7	24
Hydropsychidae (unidentified)	0	0	0	0	0	0
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
Ryacophila spp.	7	0	3	8	2	20
OSTRACODA	0	0	1	2	0	3
ACARI	4	7	3	2	2	18
OLIGOCHAETA	3	5	2	0	3	13
TURBELLARIA	0	0	2	0	1	3
NEMATODA	8	17	4	3	5	37
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	358	277	292	235	251	1,413

Station No: 7
Date: August 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	1	0	0	0	1
Elmidae (larva)	36	28	27	5	16	112
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	0	0	3	0	0	3
Nematocera (unidentified)	1	0	2	0	1	4
Ceratopogoniidae	2	0	1	0	0	3
Psychodidae - *Pericoma* spp.	0	3	1	0	0	4
Tanyderidae	1	0	0	0	0	1
Tendipididae	75	59	48	61	97	340
Tipulidae	1	0	1	3	0	5
Emphemeroptera (unidentified)	0	0	2	2	1	5
Baetidae	15	38	14	6	1	74
Ephemerellidae (unidentified)	4	1	0	0	1	6
Ephemerella spp.	0	2	1	2	1	6
cf. *E. euterpe*	0	0	0	0	0	0
E. coloradensis	0	0	0	0	0	0
E. doddsii	2	1	1	0	1	5
E. spinifera group	4	1	6	0	1	12
E. serrata group	3	0	9	3	0	15
Heptageniidae	19	15	17	4	13	68
Rhithrogena spp.	1	0	0	0	0	1
Lepthophlebiidae	1	0	0	0	0	1
Siphlonuridae	0	2	1	1	0	4
Plecoptera (unidentified)	2	3	2	3	3	13
Holognatha (unidentified)	3	8	7	0	2	20
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	0	0	0	0	0	0
N. subgenus *Zapada*	0	0	0	0	0	0
N. subgenus *Zapada cinctipes*	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Bucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	0	0	0	0	0
Systellognatha (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	3	9	12	3	8	35
Alloperla spp.	0	0	0	0	1	1
Perlodidae (unidentified)	2	1	0	1	1	5
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	0	0	0	0	0	0
Isoperla spp.	0	0	0	0	0	0
Type red	2	0	0	2	2	6
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	1	0	0	0	1	2
Hydropsychidae (unidentified)	0	0	0	0	0	0
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
Ryacophila spp.	0	0	0	0	0	0
OSTRACODA	2	0	0	6	1	9
ACARI	19	13	5	1	2	40
OLIGOCHAETA	3	5	6	1	3	18
TURBELLARIA	3	2	2	0	1	8
NEMATODA	0	1	2	0	1	4
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	205	193	170	104	159	831

Station No: 1
Date: September 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	1	0	2	0	3
Elmidae (larva)	0	0	0	0	0	0
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	0	0	0	0	0	0
Nematocera (unidentified)	0	0	0	0	0	0
Ceratopogoniidae	0	0	1	1	0	2
Psychodidae - *Pericoma* spp.	4	1	7	9	3	24
Tanyderidae	1	0	0	0	0	1
Tendipididae	9	17	9	5	8	48
Tipulidae	1	4	5	4	3	17
Emphemeroptera (unidentified)	0	0	0	0	0	0
Baetidae	16	3	49	31	33	132
Ephemerellidae (unidentified)	0	0	0	0	0	0
Ephemerella spp.	0	0	0	0	0	0
cf. *E. euterpe*	1	0	0	0	0	1
E. coloradensis	0	0	0	0	0	0
E. doddsii	0	1	2	7	2	12
E. spinifera group	0	0	0	0	0	0
E. serrata group	0	0	0	0	4	4
Heptageniidae	5	35	4	19	32	95
Rhithrogena spp.	91	17	15	18	61	202
Lepthophlebiidae	9	7	12	13	5	46
Siphlonuridae	0	0	2	0	0	2
Plecoptera (unidentified)	4	0	0	1	0	5
Holognatha (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	0	0	0	0	0	0
N. subgenus *Zapada*	5	1	2	1	1	10
N. subgenus *Zapada cinctipes*	7	1	3	0	0	11
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Bucapnopsis* spp.	3	2	0	2	0	7
Taeniopteryginae - *Brachyptera* spp.	37	58	29	13	68	205
Systellognatha (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	24	12	3	12	20	71
Alloperla spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0	0
Arcynopteryx subgenus *Megarcys* spp.	3	2	0	0	4	9
Isogenus spp.	0	0	0	1	0	1
Isoperla spp.	2	0	0	0	0	2
Type red	0	0	2	0	0	2
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	18	14	1	0	0	33
Glossosomatidae (unidentified)	28	23	7	13	4	75
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	21	6	2	3	4	36
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	2	0	0	2
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	1	3	0	0	4
Ryacophila spp.	0	0	0	0	0	0
OSTRACODA	0	0	0	0	0	0
ACARI	2	7	1	9	4	23
OLIGOCHAETA	0	0	0	0	0	0
TURBELLARIA	1	0	0	0	0	1
NEMATODA	0	0	0	0	3	3
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	292	213	161	164	259	1,089

Station No: 2
Date: September 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	11	10	15	13	2	51
Elmidae (larva)	0	0	0	0	0	0
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	0	0	0	0	0	0
Nematocera (unidentified)	0	0	0	0	0	0
Ceratopogoniidae	0	0	2	0	0	2
Psychodidae - *Pericoma* spp.	104	28	61	66	4	263
Tanyderidae	0	0	3	1	2	6
Tendipididae	26	79	123	36	21	285
Tipulidae	4	10	41	15	6	76
Ephemeroptera (unidentified)	0	0	0	0	0	0
Baetidae	9	99	67	41	58	274
Ephemerellidae (unidentified)	15	4	7	9	2	37
Ephemerella spp.	0	6	3	4	4	17
cf. *E. euterpe*	0	0	0	0	0	0
E. coloradensis	0	0	0	0	0	0
E. doddsii	6	13	12	7	9	47
E. spinifera group	0	0	0	0	0	0
E. serrata group	0	2	0	0	2	4
Heptageniidae	15	49	61	39	27	191
Rhithrogena spp.	11	4	8	10	8	41
Lepthophlebiidae	0	0	3	6	2	11
Siphlonuridae	2	6	23	16	7	54
Plecoptera (unidentified)	0	3	13	0	0	16
Holognatha (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	0	4	0	0	0	4
N. subgenus *Zapada*	2	21	3	5	4	35
N. subgenus *Zapada cinctipes*	5	6	10	7	7	35
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Bucapnopsis* spp.	3	3	0	6	2	14
Taeniopteryginae - *Brachyptera* spp.	13	49	23	24	6	115
Systellognatha (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	6	16	11	18	8	59
Alloperla spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0	0
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	3	7	2	4	5	21
Isoperla spp.	0	0	0	0	0	0
Type red	4	17	16	11	5	53
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	7	0	0	1	8
Glossosomatidae (unidentified)	5	48	61	37	85	236
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	3	54	10	5	5	77
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	1	0	0	0	0	1
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
Ryacophila spp.	1	14	6	3	7	31
OSTRACODA	0	0	0	0	0	0
ACARI	9	19	37	27	16	108
OLIGOCHAETA	0	0	0	0	0	0
TURBELLARIA	1	3	3	2	3	12
NEMATODA	0	0	3	2	2	7
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	259	581	627	414	310	2,191

Station No: 3
Date: September 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	0	0	0	0	0	0
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	0	0	0	0	0	0
Nematocera (unidentified)	0	0	0	0	1	1
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - *Pericoma* spp.	1	2	3	3	4	13
Tanyderidae	0	0	0	0	0	0
Tendipididae	4	4	47	17	12	84
Tipulidae	0	0	0	1	2	3
Ephemeroptera (unidentified)	0	0	0	0	0	0
Baetidae	28	13	68	77	71	257
Ephemerellidae (unidentified)	0	0	0	0	0	0
Ephemerella spp.	0	0	0	0	0	0
cf. *E. euterpe*	0	0	0	0	0	0
E. coloradensis	0	0	0	0	0	0
E. doddsii	3	3	5	4	4	19
E. spinifera group	0	0	0	0	0	0
E. serrata group	0	0	2	1	2	5
Heptageniidae	4	11	22	14	5	56
Rhithrogena spp.	11	13	35	17	17	93
Lepthophlebiidae	0	0	0	0	0	0
Siphlonuridae	0	0	1	0	0	1
Plecoptera (unidentified)	0	0	0	0	0	0
Holognatha (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	0	0	0	0	0	0
N. subgenus *Zapada*	0	0	0	0	1	1
N. subgenus *Zapada cinctipes*	0	0	0	0	1	1
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	0	0	17	24	41
Systellognatha (unidentified)	0	0	1	0	1	2
Chloroperlidae (unidentified)	10	7	15	10	8	50
Alloperla spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0	0
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	0	0	0	4	0	4
Isoperla spp.	0	0	0	0	0	0
Type red	1	0	0	0	0	1
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	3	4	3	1	4	15
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	4	19	23
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
Ryacophila spp.	0	0	0	0	0	0
OSTRACODA	0	0	0	0	0	0
ACARI	22	17	18	19	8	84
OLIGOCHAETA	0	0	2	0	0	2
TURBELLARIA	0	0	0	0	0	0
NEMATODA	4	0	3	2	5	14
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	91	74	225	191	189	770

Station No: 4
Date: September 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	0	2	1	0	0	3
Elmidae (larva)	0	0	0	0	0	0
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	0	0	0	0	0	0
Nematocera (unidentified)	0	0	0	0	0	0
Ceratopogoniidae	1	1	1	0	1	4
Psychodidae - *Pericoma* spp.	16	31	17	17	13	94
Tanyderidae	0	0	0	0	0	0
Tendipididae	16	29	9	17	13	84
Tipulidae	5	8	8	13	9	43
Ephemeroptera (unidentified)	0	0	0	0	8	8
Baetidae	42	60	62	86	33	283
Ephemerellidae (unidentified)	1	0	1	0	0	2
Ephemerella spp.	3	4	6	7	4	24
cf. *E. euterpe*	0	0	0	0	0	0
E. coloradensis	0	0	0	0	0	0
E. doddsii	6	10	3	8	5	32
E. spinifera group	0	0	0	0	0	0
E. serrata group	0	0	0	0	0	0
Heptageniidae	49	19	31	23	24	146
Rhithrogena spp.	69	57	58	56	54	294
Lepthophlebiidae	0	0	0	0	0	0
Siphlonuridae	0	0	1	0	0	1
Plecoptera (unidentified)	0	0	0	0	0	0
Holognatha (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	0	0	0	0	0	0
N. subgenus *Zapada*	2	0	0	2	1	5
N. subgenus *Zapada cinctipes*	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Bucapnopsis* spp.	0	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	35	28	32	58	34	187
Systellognatha (unidentified)	0	0	1	0	0	1
Chloroperlidae (unidentified)	17	19	23	20	17	96
Alloperla spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0	0
Aroynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	4	1	1	3	3	12
Isoperla spp.	0	0	0	0	0	0
Type red	3	1	2	2	1	9
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	1	0	0	0	1
Glossosomatidae (unidentified)	13	20	8	23	4	68
Glossosoma spp.	0	0	0	0	0	0
Agapetus spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	2	7	3	5	2	19
Hydropsyche spp.	0	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	1	1	0	0	0	2
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
Ryacophila spp.	5	6	7	3	0	21
OSTRACODA	0	0	0	0	0	0
ACARI	2	0	0	6	2	10
OLIGOCHAETA	1	1	0	0	5	7
TURBELLARIA	0	0	0	0	0	0
NEMATODA	2	0	3	4	3	12
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	295	306	278	353	236	1,468

Station No: 5
Date: September 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	Total (0.3 m^{-2})
INSECTA				
Coleoptera				
Elmidae (adult)	3	2	0	5
Elmidae (larva)	0	0	0	0
Collembola	0	0	0	0
Diptera				
Cyclorrhapha	0	0	0	0
Nematocera (unidentified)	0	0	1	1
Ceratopogoniidae	1	0	0	1
Psychodidae - *Pericoma* spp.	18	13	13	44
Tanyderidae	0	0	0	0
Tendipididae	42	19	32	93
Tipulidae	1	8	4	13
Ephemeroptera (unidentified)	4	3	3	10
Baetidae	22	17	54	93
Ephemerellidae (unidentified)	2	1	6	9
Ephemerella spp.	3	0	2	5
cf. *E. euterpe*	0	0	0	0
E. coloradensis	0	0	0	0
E. doddsii	8	13	9	30
E. spinifera group	0	0	0	0
E. serrata group	0	0	0	0
Heptageniidae	23	28	16	67
Rhithrogena spp.	36	12	21	69
Lepthophlebiidae	12	25	16	53
Siphlonuridae	2	0	0	2
Plecoptera (unidentified)	9	5	2	16
Holognatha (unidentified)	0	0	0	0
Nemouridae (unidentified)	0	0	0	0
Nemoura spp.	2	0	0	2
N. subgenus *Zapada*	5	4	4	13
N. subgenus *Zapada cinctipes*	1	0	0	1
Capniinae (unidentified)	0	0	0	0
Capnia or *Eucapnopsis* spp.	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	33	149	116	298
Systellognatha (unidentified)	5	4	2	11
Chloroperlidae (unidentified)	36	33	18	87
Alloperla spp.	0	0	0	0
Perlodidae (unidentified)	0	0	0	0
Arcynopteryx subgenus *Megarcys* spp.	0	4	1	5
Isogenus spp.	7	3	1	11
Isoperla spp.	0	0	0	0
Type red	3	1	6	10
Tricoptera (unidentified)	0	0	0	0
Brachycentridae - *Micrasema* spp.	1	0	0	1
Glossosomatidae (unidentified)	0	0	56	56
Glossosoma spp.	0	0	0	0
Agapetus spp.	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0
Hydropsyche spp.	0	0	0	0
Parapsyche spp.	0	0	0	0
Lepidostomatidae	0	0	0	0
Limnephilidae (unidentified)	2	3	2	7
Platycentropus spp.	0	0	0	0
Oligophlebodes spp.	0	0	0	0
Psychomyiidae	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0
Ryacophila spp.	5	11	7	23
OSTRACODA	2	0	0	2
ACARI	13	11	16	40
OLIGOCHAETA	0	0	0	0
TURBELLARIA	1	0	0	1
NEMATODA	0	0	3	3
PELECYPODA	0	0	0	0
Total Number of Organisms	302	369	411	1,082

Station No: 6
Date: September 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	10	7	9	5	6	37
Elmidae (larva)	0	0	0	0	0	0
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	0	0	0	0	0	0
Nematocera (unidentified)	1	0	2	0	4	7
Ceratopogoniidae	0	1	0	1	3	5
Psychodidae - *Pericoma* spp.	17	5	8	8	3	41
Tanyderidae	2	3	4	2	1	12
Tendipididae	42	38	26	37	42	185
Tipulidae	11	4	3	5	4	27
Emphemeroptera (unidentified)	2	7	0	1	0	10
Baetidae	390	440	330	220	316	1,696
Ephemerellidae (unidentified)	0	0	0	0	1	1
Ephemerella spp.	2	7	5	1	5	20
cf. *E. euterpe*	0	0	0	0	0	0
E. coloradensis	0	0	0	0	0	0
E. doddsii	16	18	19	17	41	111
E. spinifera group	0	0	0	0	0	0
E. serrata group	0	0	0	0	0	0
Heptageniidae	48	39	41	19	42	189
Rhithrogena spp.	18	14	7	8	2	49
Lepthophlebiidae	0	0	0	0	0	0
Siphlonuridae	0	0	0	0	0	0
Plecoptera (unidentified)	28	5	11	9	3	56
Holognatha (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	0	0	0	0	5	5
N. subgenus *Zapada*	27	24	28	25	8	112
N. subgenus *Zapada cinctipes*	5	4	6	4	6	25
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	4	5	4	5	2	20
Taeniopteryginae - *Brachyptera* spp.	208	162	128	88	62	648
Systellognatha (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	0	1	3	3	4	11
Alloperla spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0	0
Arcynopteryx subgenus *Megarcys* spp.	1	1	1	3	1	7
Isogenus spp.	0	1	2	3	3	9
Isoperla spp.	0	0	0	0	0	0
Type red	28	22	28	27	28	133
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	2	3	0	3	9	17
Glossosoma spp.	1	4	2	0	3	10
Agapetus spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	8	5	6	8	4	31
Hydropsyche spp.	13	12	9	13	2	49
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
Ryacophila spp.	9	13	12	10	13	57
OSTRACODA	16	9	11	8	11	55
ACARI	12	7	16	19	13	67
OLIGOCHAETA	0	0	0	4	1	5
TURBELLARIA	2	7	6	1	0	16
NEMATODA	6	3	2	4	4	19
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	929	871	729	561	652	3,742

Station No: 7
Date: September 1976

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	5	Total (0.5 m^{-2})
INSECTA						
Coleoptera						
Elmidae (adult)	6	11	13	25	20	75
Elmidae (larva)	0	0	0	0	0	0
Collembola	0	0	0	0	0	0
Diptera						
Cyclorrhapha	0	0	0	0	0	0
Nematocera (unidentified)	0	2	2	1	0	5
Ceratopogoniidae	0	1	0	1	0	2
Psychodidae - *Pericoma* spp.	9	27	13	19	16	84
Tanyderidae	0	5	5	1	0	11
Tendipididae	33	32	41	28	27	161
Tipulidae	0	2	0	5	6	13
Emphemeroptera (unidentified)	1	0	0	0	0	1
Baetidae	9	2	17	15	11	54
Ephemerellidae (unidentified)	0	0	0	0	0	0
Ephemerella spp.	0	0	3	2	0	5
cf. *E. euterpe*	1	0	0	0	0	1
E. coloradensis	0	0	0	0	0	0
E. doddsii	2	3	1	0	5	11
E. spinifera group	0	0	0	0	0	0
E. serrata group	0	0	0	0	0	0
Heptageniidae	23	31	27	45	32	158
Rhithrogena spp.	1	0	1	1	0	3
Lepthophlebiidae	2	0	1	0	0	3
Siphlonuridae	0	0	0	0	0	0
Plecoptera (unidentified)	3	8	3	2	4	20
Holognatha (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
Nemoura spp.	2	0	0	0	0	2
N. subgenus *Zapada*	5	4	3	6	13	31
N. subgenus *Zapada cinctipes*	36	27	15	0	2	80
Capniinae (unidentified)	0	0	0	0	0	0
Capnia or *Bucapnopsis* spp.	9	9	8	10	7	43
Taeniopteryginae - *Brachyptera* spp.	33	58	47	23	64	225
Systellognatha (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	2	4	2	3	5	16
Alloperla spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0	0
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0	0
Isogenus spp.	2	4	2	3	5	16
Isoperla spp.	0	0	2	0	0	2
Type red	3	0	3	1	0	7
Tricoptera (unidentified)	0	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	1	0	0	1
Glossosomatidae (unidentified)	2	8	2	1	2	15
Glossosoma spp.	8	19	18	11	7	63
Agapetus spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	2	5	7	1	0	15
Hydropsyche spp.	0	0	0	3	9	12
Parapsyche spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
Ryacophila spp.	18	4	2	5	9	38
OSTRACODA	2	1	5	3	17	28
ACARI	14	6	7	5	11	43
OLIGOCHAETA	7	4	3	2	3	19
TURBELLARIA	6	9	3	13	9	40
NEMATODA	3	0	2	4	3	12
PELECYPODA	0	0	0	0	0	0
Total Number of Organisms	244	286	259	239	287	1,315

TABLE 26

Counts of macroinvertebrates collected on artificial substrates (Hester-Dendy samplers) in the Flathead River Basin, September, 1976. Insects are listed under the lowest taxonomic category to which each individual could be identified.

Station No: 1

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	Total (0.4 m^{-2})
INSECTA					
Coleoptera					
Elmidae (adult)	0	0	0	0	0
Elmidae (larva)	0	0	0	0	0
Collembola	0	0	0	0	0
Diptera					
Cyclorrhapha	0	0	0	0	0
Nematocera (unidentified)	0	0	0	0	0
Ceratopogoniidae	0	0	0	0	0
Psychodidae - *Pericoma* spp.	0	0	0	0	0
Tanyderidae	0	0	0	0	0
Tendipididae	6	3	4	8	21
Tipulidae	0	0	0	0	0
Emphemeroptera (unidentified)	0	0	0	0	0
Baetidae	7	15	7	18	47
Ephemerellidae (unidentified)	0	1	0	1	2
Ephemerella spp.	3	0	0	0	3
cf. *E. euterpe*	0	0	0	0	0
E. coloradensis	0	0	0	0	0
E. doddsii	0	0	0	0	0
E. spinifera group	1	0	0	0	1
E. serrata group	5	11	1	2	19
Heptageniidae	7	19	16	37	79
Rhithrogena spp.	16	4	6	11	37
Lepthophlebiidae	0	0	0	0	0
Siphlonuridae	5	0	0	9	14
Plecoptera (unidentified)	6	11	2	12	31
Holognatha (unidentified)	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0
Nemoura spp.	1	0	0	0	1
N. subgenus *Zapada*	0	3	1	1	5
N. subgenus *Zapada cinctipes*	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	3	1	2	1	7
Taeniopteryginae - *Brachyptera* spp.	0	0	0	1	1
Systellognatha (unidentified)	0	0	0	0	0
Chloroperlidae (unidentified)	2	0	1	2	5
Alloperla spp.	0	0	0	0	0
Perlodidae (unidentified)	3	0	0	1	4
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0
Isogenus spp.	6	4	5	4	19
Isoperla spp.	0	0	0	0	0
Type red	0	0	0	1	1
Tricoptera (unidentified)	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	1	1	0	0	2
Glossosomatidae (unidentified)	0	0	0	0	0
Glossosoma spp.	0	0	0	0	0
Agapetus spp.	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0
Hydropsyche spp.	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0
Psychomyiidae	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0
Ryacophila spp.	0	0	0	3	3
OSTRACODA	0	0	0	0	0
ACARI	0	0	0	0	0
OLIGOCHAETA	0	0	0	0	0
TURBELLARIA	0	0	0	0	0
NEMATODA	0	2	0	0	2
PELECYPODA	0	0	0	0	0
Total Number of Organisms	72	75	45	112	304

Station No: 2

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	Total (0.4 m^{-2})
INSECTA					
Coleoptera					
Elmidae (adult)	0	1	0	0	1
Elmidae (larva)	0	0	0	0	0
Collembola	0	0	0	0	0
Diptera					
Cyclorrhapha	0	0	0	0	0
Nematocera (unidentified)	1	3	2	1	7
Ceratopogoniidae	0	0	0	0	0
Psychodidae - *Pericoma* spp.	0	0	0	0	0
Tanyderidae	0	1	1	1	3
Tendipididae	2	22	9	11	44
Tipulidae	1	3	0	1	5
Emphemeroptera (unidentified)	0	0	0	0	0
Baetidae	3	72	59	105	239
Ephemerellidae (unidentified)	8	13	3	5	29
Ephemerella spp.	5	1	3	0	9
cf. *E. euterpe*	0	0	0	0	0
E. coloradensis	0	1	1	0	2
E. doddsii	0	1	1	2	4
E. spinifera group	0	0	0	0	0
E. serrata group	1	0	0	0	1
Heptageniidae	2	22	19	11	54
Rhithrogena spp.	3	12	19	13	47
Lepthophlebiidae	2	0	0	0	2
Siphlonuridae	0	0	0	0	0
Plecoptera (unidentified)	2	8	5	26	41
Holognatha (unidentified)	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0
Nemoura spp.	2	6	1	22	31
N. subgenus *Zapada*	3	8	13	13	37
N. subgenus *Zapada cinctipes*	2	19	2	2	25
Capniinae (unidentified)	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	3	1	6	5	15
Taeniopteryginae - *Brachyptera* spp.	0	3	1	0	4
Systellognatha (unidentified)	0	0	0	0	0
Chloroperlidae (unidentified)	1	0	0	0	1
Alloperla spp.	0	0	0	0	0
Perlodidae (unidentified)	0	0	3	0	3
Arcynopteryx subgenus *Megarcys* spp.	0	0	6	0	6
Isogenus spp.	5	7	2	6	20
Isoperla spp.	0	0	0	0	0
Type red	0	3	1	5	9
Tricoptera (unidentified)	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0	0	0
Glossosomatidae (unidentified)	2	0	0	2	4
Glossosoma spp.	0	0	0	0	0
Agapetus spp.	1	12	46	1	60
Hydropsychidae (unidentified)	0	0	0	0	0
Hydropsyche spp.	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0
Limnephilidae (unidentified)	0	0	4	11	15
Platycentropus spp.	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0
Psychomyiidae	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0
Ryacophila spp.	3	0	3	1	7
OSTRACODA	0	0	0	0	0
ACARI	2	23	7	8	40
OLIGOCHAETA	1	0	0	0	1
TURBELLARIA	0	1	0	1	2
NEMATODA	1	0	0	2	3
PELECYPODA	0	0	0	0	0
Total Number of Organisms	56	243	217	255	771

Station No: 3

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	Total (0.4 m^{-2})
INSECTA					
Coleoptera					
Elmidae (adult)	0	0	0	0	0
Elmidae (larva)	0	0	0	0	0
Collembola	0	0	0	0	0
Diptera					
Cyclorrhapha	0	0	0	0	0
Nematocera (unidentified)	0	0	0	0	0
Ceratopogoniidae	0	1	2	0	3
Psychodidae - *Pericoma* spp.	0	0	0	0	0
Tanyderidae	0	0	0	0	0
Tendipididae	7	0	0	3	10
Tipulidae	0	0	0	0	0
Emphemeroptera (unidentified)	0	0	0	0	0
Baetidae	46	99	67	81	293
Ephemerellidae (unidentified)	0	0	0	0	0
Ephemerella spp.	2	5	3	2	12
cf. *E. euterpe*	0	0	0	0	0
E. coloradensis	0	0	0	0	0
E. doddsii	0	0	0	0	0
E. spinifera group	0	0	0	0	0
E. serrata group	0	0	0	0	0
Heptageniidae	4	5	2	1	12
Rhithrogena spp.	11	15	23	14	63
Lepthophlebiidae	0	0	0	0	0
Siphlonuridae	0	0	0	0	0
Plecoptera (unidentified)	0	0	0	0	0
Holognatha (unidentified)	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0
Nemoura spp.	0	0	2	0	2
N. subgenus *Zapada*	0	0	0	0	0
N. subgenus *Zapada cinctipes*	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	0	0	0	0	0
Taeniopteryginae - *Brachyptera* spp.	0	0	0	0	0
Systellognatha (unidentified)	1	1	2	1	5
Chloroperlidae (unidentified)	0	4	3	3	10
Alloperla spp.	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0
Arcynopteryx subgenus *Megarcys* spp.	0	0	0	0	0
Isogenus spp.	3	1	1	2	7
Isoperla spp.	0	0	0	0	0
Type red	0	0	0	0	0
Tricoptera (unidentified)	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	1	2	0	3
Glossosomatidae (unidentified)	0	0	0	2	2
Glossosoma spp.	0	0	0	0	0
Agapetus spp.	0	0	0	0	0
Hydropsychidae (unidentified)	3	37	40	9	89
Hydropsyche spp.	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0
Psychomyiidae	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0
Rhyacophila spp.	0	0	0	0	0
OSTRACODA	0	0	0	0	0
ACARI	6	2	4	4	16
OLIGOCHAETA	0	0	0	0	0
TURBELLARIA	0	0	0	0	0
NEMATODA	1	0	0	2	3
PELECYPODA	0	0	0	0	0
Total Number of Organisms	84	171	151	124	530

Station No: 4

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	Total (0.4 m^{-2})
INSECTA					
Coleoptera					
Elmidae (adult)	0	0	0	0	0
Elmidae (larva)	0	0	0	0	0
Collembola	0	0	0	0	0
Diptera					
Cyclorrhapha	0	0	0	0	0
Nematocera (unidentified)	0	0	0	0	0
Ceratopogoniidae	0	1	9	0	10
Psychodidae - *Pericoma* spp.	0	0	0	0	0
Tanyderidae	0	0	1	6	7
Tendipididae	1	2	0	4	7
Tipulidae	0	0	1	0	1
Emphemeroptera (unidentified)	3	0	5	2	10
Baetidae	156	194	237	580	1,167
Ephemerellidae (unidentified)	3	3	7	5	18
Ephemerella spp.	0	1	0	1	2
cf. *E. euterpe*	0	0	0	0	0
E. coloradensis	0	0	0	0	0
E. doddsii	0	0	0	0	0
E. spinifera group	0	0	0	0	0
E. serrata group	2	0	3	3	8
Heptageniidae	8	11	14	7	40
Rhithrogena spp.	3	9	12	13	37
Lepthophlebiidae	0	0	0	0	0
Siphlonuridae	0	0	0	0	0
Plecoptera (unidentified)	3	8	7	16	34
Holognatha (unidentified)	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0
Nemoura spp.	1	6	7	2	16
N. subgenus *Zapada*	0	0	0	0	0
N. subgenus *Zapada cinctipes*	3	5	4	7	19
Capniinae (unidentified)	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	1	4	4	3	12
Taeniopteryginae - *Brachyptera* spp.	0	0	3	0	3
Systellognatha (unidentified)	0	0	0	0	0
Chloroperlidae (unidentified)	0	0	0	0	0
Alloperla spp.	0	0	0	0	0
Perlodidae (unidentified)	5	7	0	0	12
Arcynopteryx subgenus *Megarcys* spp.	0	1	0	0	1
Isogenus spp.	2	0	1	1	4
Isoperla spp.	0	0	0	0	0
Type red	0	1	2	0	3
Tricoptera (unidentified)	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	1	0	0	0	1
Glossosomatidae (unidentified)	8	8	17	2	35
Glossosoma spp.	0	0	0	0	0
Agapetus spp.	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0
Hydropsyche spp.	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0
Psychomyiidae	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0
Ryacophila spp.	13	3	7	1	24
OSTRACODA	0	0	0	0	0
ACARI	1	3	2	3	9
OLIGOCHAETA	0	0	0	0	0
TURBELLARIA	0	0	0	0	0
NEMATODA	0	0	0	3	3
PELECYPODA	0	0	0	0	0
Total Number of Organisms	214	267	343	659	1,483

Station No: 6

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	Total (0.4 m^{-2})
INSECTA					
Coleoptera					
Elmidae (adult)	0	0	0	0	0
Elmidae (larva)	0	0	0	0	0
Collembola	0	0	0	0	0
Diptera					
Cyclorrhapha	0	0	0	0	0
Nematocera (unidentified)	5	0	0	0	5
Ceratopogoniidae	0	0	0	0	0
Psychodidae - *Pericoma* spp.	4	0	0	1	5
Tanyderidae	12	4	8	1	25
Tendipididae	4	8	14	5	31
Tipulidae	1	0	1	0	2
Emphemeroptera (unidentified)	0	0	0	0	0
Baetidae	337	328	734	298	1,697
Ephemerellidae (unidentified)	3	1	0	1	5
Ephemerella spp.	0	0	1	0	1
cf. *E. euterpe*	0	1	0	0	1
E. coloradensis	0	0	0	0	0
E. doddsii	3	2	0	0	5
E. spinifera group	0	0	0	0	0
E. serrata group	0	0	0	0	0
Heptageniidae	22	15	17	23	77
Rhithrogena spp.	4	3	11	5	23
Lepthophlebiidae	0	0	0	0	0
Siphlonuridae	0	0	0	0	0
Plecoptera (unidentified)	11	60	44	23	138
Holognatha (unidentified)	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0
Nemoura spp.	9	17	16	4	46
N. subgenus *Zapada*	46	18	46	63	173
N. subgenus *Zapada cinctipes*	14	5	3	4	26
Capniinae (unidentified)	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	4	7	1	5	17
Taeniopteryginae - *Brachyptera* spp.	2	1	0	0	3
Systellognatha (unidentified)	0	0	0	1	1
Chloroperlidae (unidentified)	0	0	0	0	0
Alloperla spp.	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0
Arcynopteryx subgenus *Megarcys* spp.	4	5	2	0	11
Isogenus spp.	0	0	0	0	0
Isoperla spp.	0	0	0	0	0
Type red	7	6	9	4	26
Tricoptera (unidentified)	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	0	0	0	0	0
Glossosomatidae (unidentified)	5	14	9	2	30
Glossosoma spp.	0	0	0	0	0
Agapetus spp.	0	0	0	0	0
Hydropsychidae (unidentified)	9	5	0	0	14
Hydropsyche spp.	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0
Limnephilidae (unidentified)	23	3	14	1	41
Platycentropus spp.	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0
Psychomyiidae	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0
Ryacophila spp.	9	9	17	5	40
OSTRACODA	0	0	0	0	0
ACARI	8	16	13	2	39
OLIGOCHAETA	0	0	0	0	0
TURBELLARIA	0	0	0	0	0
NEMATODA	0	0	0	1	1
PELECYPODA	0	0	0	0	0
Total Number of Organisms	546	528	960	449	2,483

Station No: 7

Invertebrate Identification List	Number of Organisms 0.1 m^{-2} Sample Number 1	2	3	4	Total (0.4 m^{-2})
INSECTA					
Coleoptera					
Elmidae (adult)	0	0	0	0	0
Elmidae (larva)	0	0	0	0	0
Collembola	0	0	0	0	0
Diptera					
Cyclorrhapha	0	0	0	0	0
Nematocera (unidentified)	1	1	0	0	2
Ceratopogoniidae	0	0	0	0	0
Psychodidae - *Pericoma* spp.	0	0	0	0	0
Tanyderidae	1	0	3	0	4
Tendipididae	11	31	30	23	95
Tipulidae	0	0	0	1	1
Emphemeroptera (unidentified)	4	0	5	0	9
Baetidae	25	22	36	54	137
Ephemerellidae (unidentified)	5	5	0	9	19
Ephemerella spp.	1	6	0	2	9
cf. *E. euterpe*	0	2	0	0	2
E. coloradensis	0	0	1	1	2
E. doddsii	0	0	1	0	1
E. spinifera group	0	0	0	0	0
E. serrata group	0	0	2	1	3
Heptageniidae	34	28	57	60	179
Rhithrogena spp.	0	1	0	7	8
Lepthophlebiidae	0	0	0	0	0
Siphlonuridae	0	1	0	0	1
Plecoptera (unidentified)	3	4	6	8	21
Holognatha (unidentified)	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0
Nemoura spp.	2	0	3	0	5
N. subgenus *Zapada*	4	3	9	8	24
N. subgenus *Zapada cinctipes*	6	3	14	6	29
Capniinae (unidentified)	0	0	0	0	0
Capnia or *Eucapnopsis* spp.	2	3	2	1	8
Taeniopteryginae - *Brachyptera* spp.	2	1	0	1	4
Systellognatha (unidentified)	0	0	0	0	0
Chloroperlidae (unidentified)	0	0	0	1	1
Alloperla spp.	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0
Arcynopteryx subgenus *Megarcys* spp.	1	0	0	0	1
Isogenus spp.	0	0	0	1	1
Isoperla spp.	0	0	0	0	0
Type red	1	1	0	1	3
Tricoptera (unidentified)	0	0	0	0	0
Brachycentridae - *Micrasema* spp.	1	0	0	0	1
Glossosomatidae (unidentified)	3	2	4	5	14
Glossosoma spp.	0	0	0	0	0
Agapetus spp.	0	0	0	0	0
Hydropsychidae (unidentified)	7	4	4	0	15
Hydropsyche spp.	0	0	0	0	0
Parapsyche spp.	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0
Platycentropus spp.	0	0	0	0	0
Oligophlebodes spp.	0	0	0	0	0
Psychomyiidae	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0
Ryacophila spp.	2	2	2	2	8
OSTRACODA	0	0	1	1	2
ACARI	4	5	16	8	33
OLIGOCHAETA	0	0	0	0	0
TURBELLARIA	0	0	1	0	1
NEMATODA	0	0	0	0	0
PELECYPODA	0	0	0	0	0
Total Number of Organisms	120	125	197	201	643

Table 27

Shannon-Wiener diversity (H') and Pielou's (1966, 1967) evenness (J) values for invertebrate samples collected from the Flathead River Basin, April - September, 1976.

Station Number	April		June		August		September		September (artificial substrates)	
	H'	J	H'	J	H'	J	H'	J	H'	J
	2.284	0.814	2.616	0.756	2.101	0.538	3.274	0.771	-	-
	2.866	0.904	1.711	0.610	2.282	0.761	3.136	0.752	2.974	0.860
1	2.365	0.842	1.835	0.653	2.535	0.800	3.292	0.775	2.719	0.819
	2.534	0.845	2.056	0.795	3.066	0.805	3.530	0.831	2.350	0.741
	2.412	0.761	2.110	0.703	2.081	0.626	2.816	0.689	2.649	0.739
Composite	2.814	0.689	2.284	0.548	2.558	0.574	3.441	0.741	2.862	0.752
	2.924	0.816	1.684	0.421	1.826	0.438	3.142	0.740	-	-
	2.601	0.683	2.020	0.546	2.394	0.564	3.778	0.874	3.607	0.883
2	3.151	0.828	2.453	0.628	2.896	0.682	3.771	0.846	3.133	0.783
	2.570	0.605	2.327	0.611	2.680	0.704	3.872	0.881	3.053	0.782
	2.794	0.841	2.456	0.589	3.256	0.753	3.474	0.779	2.872	0.703
Composite	3.217	0.693	2.382	0.527	2.790	0.594	3.886	0.837	3.285	0.737
	-	-	1.929	0.643	2.780	0.804	2.661	0.801	-	-
	-	-	1.979	0.705	2.867	0.688	2.560	0.853	2.114	0.667
3	-	-	2.274	0.685	3.080	0.770	2.662	0.699	1.821	0.548
	-	-	2.000	0.667	2.906	0.785	2.851	0.730	2.199	0.636
	-	-	2.105	0.634	2.456	0.685	3.010	0.770	1.904	0.551
Composite	-	-	2.193	0.576	3.078	0.671	2.997	0.719	2.138	0.559
	2.042	0.879	2.428	0.702	2.825	0.788	2.958	0.709	-	-
	2.257	0.804	2.276	0.658	2.881	0.779	3.218	0.787	1.688	0.456
4	2.460	0.741	2.418	0.675	3.085	0.702	3.001	0.734	1.683	0.469
	0.918	0.918	1.847	0.795	2.952	0.775	3.138	0.803	1.916	0.490
	2.246	0.967	1.787	0.636	3.004	0.789	3.167	0.775	0.906	0.238
Composite	2.715	0.713	2.562	0.614	3.137	0.694	3.187	0.705	1.483	0.356

Table 27. (Continued)

Station Number	April		June		August		September		September (artificial substrates)	
	H'	J	H'	J	H'	J	H'	J	H'	J
	2.851	0.749	2.854	0.750	1.676	0.440	-	-	-	-
	2.955	0.723	2.550	0.711	1.078	0.359	-	-	-	-
5	2.685	0.749	2.450	0.662	1.566	0.437	3.714	0.821	-	-
	3.046	0.780	2.413	0.652	1.554	0.408	3.146	0.754	-	-
	2.902	0.784	2.707	0.783	2.347	0.574	3.379	0.782	-	-
Composite	3.110	0.702	2.731	0.622	1.818	0.414	3.586	0.763	-	-
	-	-	3.082	0.739	2.970	0.666	2.866	0.643	-	-
	-	-	3.563	0.854	3.183	0.779	2.633	0.582	2.239	0.537
6	-	-	3.450	0.863	3.337	0.738	2.891	0.648	2.144	0.549
	-	-	3.002	0.768	3.450	0.812	3.198	0.697	1.502	0.395
	-	-	3.206	0.769	3.449	0.774	2.879	0.636	1.747	0.437
Composite	-	-	3.506	0.737	3.418	0.727	2.921	0.629	1.918	0.444
	3.311	0.794	3.191	0.817	2.996	0.705	3.800	0.852	-	-
	3.096	0.743	2.486	0.585	3.048	0.762	3.739	0.827	3.250	0.795
7	3.076	0.769	2.740	0.657	3.331	0.784	3.850	0.840	3.025	0.774
	2.972	0.743	3.212	0.731	2.421	0.636	3.874	0.845	2.993	0.766
	3.096	0.716	2.702	0.710	2.237	0.547	3.884	0.884	2.744	0.702
Composite	3.239	0.706	3.087	0.649	3.070	0.661	3.990	0.839	3.093	0.694
	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-
	-	-	2.017	0.607	-	-	-	-	-	-
	-	-	2.194	0.692	-	-	-	-	-	-
Composite	-	-	2.213	0.598	-	-	-	-	-	-